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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE WILLIAM H. ALSUP

ORACLE AMERICA, INC.,	)	
	)	
Plaintiff,	)	
	)	
VS.	)	No. C 10-3561 WHA
	)	
GOOGLE, INC.,	)	
	)	
	)	San Francisco, California
Defendant.	)	Tuesday
	)	April 19, 2016

TRANSCRIPT OF PROCEEDINGS

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(Appearances continued on next page)

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Tuesday - April 19, 2016 **8:00 a.m.**

P R O C E E D I N G S

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THE CLERK: Calling Civil Action 10-3561, Oracle America Inc. versus Google Inc.

Counsel, please step forward to the podium and state your appearances.

MR. BICKS: Good morning, Your Honor. Peter Bicks from Orrick for Oracle.

THE COURT: Okay. Welcome.

MR. BICKS: Thank you.

MR. VAN NEST: Good morning, Your Honor. Bob Van Nest of Keker Van Nest for Google. And I'm joined this morning by Christa Anderson --

MS. ANDERSON: Good morning.

MR. VAN NEST: -- Beth Egan, Steven Ragland. And our client is represented this morning by Mr. Renny Hwang. And we are all here and ready.

THE COURT: Thank you. Good.

Who is at your table, Mr. Bicks?

MR. COOPER: Your Honor, my name is John Cooper. I am here for Dr. Kearl. And Dr. Kearl is in the courtroom and will participate.

THE COURT: Thank you. Welcome to both of you.

And?

MR. BICKS: So Ms. Hurst, you know.

THE COURT: Good morning.

MS. HURST: Good morning, Your Honor.

MR. BICKS: Ms. Lewis-Gruss is here. Mr. Ramsey you know. Mr. Kim. Ms. Simpson.

MS. SIMPSON: Good morning, Your Honor.

MR. BICKS: And Mr. Keele.

THE COURT: Who is sitting beside Ms. Hurst? I didn't catch that name.

MS. HURST: Lewis-Gruss, Your Honor.

THE COURT: Spell that last name.

MS. HURST: L-e-w-i-s hyphen G-r-u-s-s.

THE COURT: G-r-u-s-s. All right. For some reason that was not on my list.

MS. LEWIS-GRUSS: Thank you, Your Honor.

THE COURT: All right. Great.

All right. We're going to try to do the damages issues today and the disgorgement issues.

Let's start with the motion directed at the 470 million in lost profits by Malackowski. So I guess that's a Google motion; right?

I don't want to get into disgorgement at this point. I just want to focus on the lost profits.

MR. VAN NEST: Very well, Your Honor. Bob Van Nest for Google.

Just a housekeeping matter, I know we're here to talk numbers. I know we're here to talk damages. But consistently through the case two categories of information have been sealed. I'm not asking --

THE COURT: You're asking for that -- I'm going to deny that motion that was filed that the "x" billion dollars is attributable to an Android or whatever it was.

No, we're not going to go through this case and keep -- this is a public proceeding. But if that's not what you have in mind, you can -- you can raise it again and I'll listen to what you have to say. But we -- we cannot be going through this trial tiptoeing around big numbers just because Google doesn't want it to be public.

MR. VAN NEST: Well, I actually wasn't asking to tiptoe around big numbers, Your Honor. The only two categories -- and I've alerted counsel to this -- are specific revenue-sharing deals with partners on current deals. The experts deal in averages. Averages are fine. It's the details of a particular deal that we'd ask be kept confidential. And then --

THE COURT: Well, who is that with? Which company?

MR. VAN NEST: Well, they're with a variety of companies.

THE COURT: You don't even want to name publicly who they are? I will deny it. Unless you make a public record

now, I might consider that one. You're talking about the one with Apple and what the revenue sharing thing there is?

MR. VAN NEST: That's right. That's one of them, sure.

THE COURT: Why is that so -- is anybody from Apple here to argue this? Why do you care?

MR. VAN NEST: Well, we care because we are in a position, Google is, of negotiating different deals with different partners. And those partners each have separate deals. So that would include the OEMs that build the phones. It would include partners like Apple that have different platforms.

In Judge Ryu's court we worked out an arrangement where the names were anonymous and averages were used. And that's been working just fine. And we are perfectly willing to live with that regime. But it makes it very difficult to negotiate additional deals if everybody in the world knows the details of every current deal. So that's the reason there.

And, again, the experts use averages. So I don't think we need to get into specifics. And I don't think anyone intends to do that today.

The only other category is Android profits and revenues in particular categories. Those have been sealed throughout the case. They are current. They include current data. We're a public company. We don't report that information publicly.

Again, there, I believe we can talk in generalities. And I don't think -- I don't think that will impair, one bit, anybody's understanding.

That's all I had to say on that, Your Honor.

THE COURT: All right. The first one I'm going to come to. The second one is denied. This is a public proceeding. And, of course, things are going to come out from both sides that the public doesn't know about. That's -- just because you're a public company doesn't give you the right -- if you-all wanted to litigate this before JAMS and some private arbitrator, God bless you. You could do that. But this is a U.S. District Court. It's a public proceeding. The public has a right to see what goes on in their District Courts. So denied.

However, on the other one, at least temporarily, I'm going to grant that motion. On the specifics of your deal with Apple and other companies, I will grant that.

But please don't say later that I granted it forever, because if we get into the trial and it's necessary to reveal that publicly in order to make the trial function smoothly, we're going to do it.

So but for now we don't need to do it, so I'll go along with you on the first one.

MR. VAN NEST: Fair enough. Thank you, Your Honor.

THE COURT: All right. Thank you.

Are you ready to argue your motion?

MR. VAN NEST: I sure am.

THE COURT: All right. Please go ahead. We've got a lot to cover in a short time.

MR. VAN NEST: And I'll be very brief because I think this is -- this is very straightforward.

What Dr. Malackowski has done is essentially take a two-year estimate/projection done internally at Sun and used that number, which is a projection on a different copyrighted work -- Java ME, not Java SE -- projected it out over five, six, seven years, taken no account of the fact that the market for feature phones was in huge transition, the smart phone market was emerging. He gives no acknowledgment whatsoever of that. He takes a single Sun projection from 2008, projects forward an 8 percent growth rate over six, seven years through 2015.

THE COURT: Well, how many years was the projection?

MR. VAN NEST: I believe it's two years.

THE COURT: You believe or you know?

MR. VAN NEST: I know.

THE COURT: All right. Two years.

MR. VAN NEST: And he takes that projection, extends it out through 2015.

Again, that projection was based on Java ME, which doesn't even contain all the 37 APIs. As Your Honor knows, Java ME,

which was this work intended for devices like Coke machines and so on, has 10 APIs total. 10 APIs total. It doesn't have the 37 APIs or the same SSO of Java SE.

So he took that projection, extended it out at a fixed rate, the 8.3 percent a year, assumed they would grow at that rate, even though everybody in the world knew that feature phones were dying, that a new market for smart phones was emerging. He gives absolutely no weight whatsoever to that. He simply takes that projection, assumes that's what they would have earned in a but-for world, and subtracts actual revenues from that to get his $475 million.

Now --

THE COURT: Does he assume -- what does he assume about the smart phone world?

MR. VAN NEST: I don't think he assumes a thing. I think he assumes that everything was fine at Sun and they were going to keep growing at 8 percent, and that their little 10 API Java ME was going to do fine, even though everybody knew that the world was changing.

And this is what Dr. Kearl criticizes heavily, is taking a projection which is very limited in time and extending it out over a long period of time without making any adjustments for the fact that the world is changing and there's a revolution out there. Dr. Kearl is very critical of this, as is Dr. Leonard and --

THE COURT: Wait, wait. Wait a second. Don't be too hard on him. At least there's two years there.

Your side is trying to say that you would have used JDK and you have zero projections. You don't even project for two months, much less two years. And yet you're willing to build an entire alternative universe based upon Open JDK.

MR. VAN NEST: That's quite different, Your Honor, because there it's a question of what does it cost; right? That's a knowable fact. What does it cost to implement Open JDK as opposed to what you're using now? That's not a projection of revenue. That's not a projection of the future. You know that number --

THE COURT: You say that so calmly, but I don't know that it's so obvious how much it would have cost.

MR. VAN NEST: Well, we've done it. I mean, we've done it. We've done the engineering. We know how much it costs, and that's what Dr. Leonard -- we'll get into Dr. Leonard later on. But that's a very different thing. As all the other experts, as Dr. Kearl and Dr. Leonard both recognize, you can't take a Java ME -- what we're trying to see here is what was the harm to the copyrighted work; right? What was the harm to the copyrighted work.

They're not even really looking -- Malackowski is not even really looking at sales data. He's not looking at sales that they may have made or not made. He's taking a projection for a

different copyrighted work with 10 APIs that was never intended to support a smart phone in the first place. I mean, they acknowledge that Java ME doesn't have the capability of supporting a smart phone. It has 10 APIs. It was never intended for that purpose.

And so he's taking that projection, running it out. He says, okay. Here's the numbers we would have had. Here's the numbers we did have. That's how he gets to the $475 million number.

THE COURT: Well, can I see the -- can you hand up to me the projection that -- the two-year projection?

You know, the -- I can't find everything. There are so many boxes of material. You lawyers have got to bring the key documents here.

Does the other side have the document?

MS. HURST: Yes, Your Honor.

THE COURT: Thank you. Would you please hand it up to me.

MS. HURST: Yes, Your Honor.

THE COURT: All right. What's been handed to me is called Exhibit 1578, Strategic Forecast, low, medium, high.

And then there's page after page of tiny microscopic numbers.

MS. HURST: Your Honor --

THE COURT: I can't read them. It's impossible to

read, but okay.

MS. HURST: I have another version that's slightly easier to read, Your Honor.

THE COURT: All right. Why don't you hand that one to me.

Okay. So just looking at the -- I'm just studying the first page.

Total Java, fiscal year '07, actual fiscal year '08, total '9, '10. What year was this?

MR. VAN NEST: This is in '08, Your Honor.

THE COURT: All right. So is '08 -- is '08 a full year, or is that a partial year?

MR. VAN NEST: '07 is a full year. I think '08, because of the zero at the bottom, I think is a partial year. The projection years are '09 and '10.

THE COURT: All right. So we have one year of actual partial year, and then looks like about two-plus years of projection. And it shows low, medium, high. Looks like losses all of those years. But somehow this must get transformed into profits. But it has Total Java, Total Mobile Embedded.

All right. Explain the -- explain to me what this document is, because I don't see the words "Java ME" on here.

MR. VAN NEST: Well, if you look to the second page, Your Honor, you'll see "Strategic Forecast." You'll see "Java" at the top. And that's Java EE, which is the enterprise. And

you go down a little bit further, "mobile embedded," that's Java ME.

So when they say "embedded" they are talking about -- essentially about Java ME, embedding it in another bigger software package. So that's why I say it was not intended to be a standalone product ever. It never was. It's embedded in other things. So he's got Java ME various categories there on the second page.

THE COURT: Okay. So --

MR. VAN NEST: Java EE is not relevant. It's the Java ME that he's relied on to do his projections here.

THE COURT: All right. Well, let's study ME for a minute. How does -- help me understand how this shows profits and how it's used by the expert.

MR. VAN NEST: I think he's using this to show -- to show his total revenues projected out. He's projecting an 8 percent growth rate. He uses the projections to calculate that Sun, in '08, was projecting growth at 8 percent. So he takes the current rate of sales and profits and projects that out at 8 percent all the way through 2015. That's essentially what he's done. And then he subtracts that number -- he subtracts from that number actual revenues for Java ME during that period of time.

So what he's deriving primarily from this is a growth rate over these two years, 8 percent a year, 8.3 percent, I believe

it is, and then he --

THE COURT: Where does the 8.3 come from?

MR. VAN NEST: I think he's comparing year over year in his total mobile embedded.

THE COURT: All right.

MR. VAN NEST: In other words, he's showing -- he's showing mobile embedded numbers for '09 and '10, and he's projecting an 8 percent growth rate. He's deriving an 8 percent growth rate from that and just projecting that out, taking current results, and assuming that Java ME grows 8 percent -- 8.3 percent a year through 2015.

THE COURT: When did Apple come on the scene with the iPhone?

MR. VAN NEST: iPhone?

THE COURT: Yeah.

MR. VAN NEST: iPhone, I believe, launched in '08. '07 or '08.

'07. 2007.

THE COURT: So the iPhone was already in the marketplace --

MR. VAN NEST: Right.

THE COURT: -- when this was being projected?

MR. VAN NEST: Right. Android had been announced and Android code was available. But the first Android phones were later in '08 and into '09. But it had been announced.

THE COURT: Well, when this -- who was the author of this study?

MR. VAN NEST: I'm not sure who at Sun prepared this.

THE COURT: Was the person -- anyone deposed at Sun who could explain this?

MR. VAN NEST: I'm not sure. Dr. -- Mr. Malackowski was deposed, but I don't believe -- I'm not sure the author of this was ever deposed.

THE COURT: One of the many lawyers surely knows the answer.

MS. HURST: I'm getting it right now, Your Honor. Give me one moment.

THE COURT: Okay. And while you're getting that, another related question is, were there any other emails or memos that referred to this strategic forecast, or was it ever updated?

What use was ever made of this strategic forecast? So that would be of some interest.

MR. VAN NEST: I don't think that -- to the extent there were, Your Honor, I don't think Mr. Malackowski considered them. I think he's relying on this -- on this projection.

The other thing I would note, while we're looking for that, is that he doesn't really make any effort to determine whether the use of the SSO and the method declarations in

Android have caused what he says is a $475 million loss of profit. He's just assuming that.

In other words, he's not done any analysis to say, well, you know, were those things instrumental in the sale? Did the folks that took licenses care about that?

Again, as he does throughout his report, he's looking at Android the platform and saying, well, we can't compete or they couldn't compete with Android the platform.

There's no effort in any of his opinions -- and I'll talk in more detail about this when we get to disgorgement -- to break it down to the SSO. He's simply saying, well, we had this great little ME business, and it was growing at 8 percent a year, and then all of a sudden Android came along and we weren't making 8 percent anymore; we were making less. And I'm going to lay all that at the feet of Google.

Notwithstanding that Apple is out there with iPhone, notwithstanding that the feature phone market was essentially drying up. Notwithstanding that they hadn't come up with their own phone to be in the smart phone market. He's simply taking this, you know, very simple limited projection and saying, gee, I think that's a good measure of what the world would have been.

That's what Dr. Kearl and Dr. Leonard are most critical of. But I would say it's equally critical to say you have to show some measure of causation, not just throw your hands up

and say, well, Android is out there, we're losing sales to Android, because you have to look at what's the infringing use and so on and so forth.

THE COURT: Well, maybe. And I've been thinking about the possible differences between the role of noninfringing alternatives and the role of SSO and disgorgement versus lost profits.

MR. VAN NEST: Right.

THE COURT: And it could be that they are very different standards on account of the way the statute is written. All right.

MR. VAN NEST: In any event --

THE COURT: Can we come back to this? Somebody tell me who the author of this was and how it was even used in the company and how we even know that.

MS. HURST: Your Honor, the author is Param Singh, P-a-r-a-m, S-i-n-g-h.

THE COURT: Okay.

MS. HURST: We know that because this came from his custody. It was a document that was in his custody. He was a product manager at Sun in the time frame of the forecast, early 2008. And the product managers were responsible for marketing a product but also developing a roadmap for how the product would be improved over time. So they were involved in supporting the sales effort but also deciding what kind of

investment decisions would be related to the product.

And so they made forecasts as a regular part of their business to aid them in, you know, making those kinds of decisions.

THE COURT: Is that what he testified to?

MS. HURST: He is not available to us, Your Honor. We have other witnesses who were at Sun at the time, in both the finance department and the sales department, who can and will be available to testify.

THE COURT: Where is Mr. Singh? Anyone know?

MS. HURST: Your Honor, I don't know right now. I will get my best information on that.

THE COURT: Thank you.

MR. VAN NEST: Your Honor --

THE COURT: Was this presented to the board of directors?

MS. HURST: No, Your Honor. I don't believe it was ever at that level of the company. It was within the Java business unit of Sun, which was part of the overall software business.

THE COURT: Are there any other memos or emails that refer to this document so that we can help understand how it was used?

Well, you could --

MS. HURST: Your Honor, it may be possible to analyze

our document database to find the answer to that question, but I don't have it for you today.

THE COURT: Okay.

MR. VAN NEST: Your Honor, if I could just make two more comments on this point.

One, to the extent there are other documents, I don't think that Mr. Malackowski considered them.

And, two, the primary objection that we have is the one that Dr. Kearl has as well, which is, quote -- and I'll quote from what he said, that:

"What is not standard is to linearly extrapolate those contemporaneous forecasts" -- he's talking about these -- "far outside the range of those actual forecasts with no additional analysis or support."

And what he means by that is if you're going to take something that was done in '08, projecting '09 and '10, and you're going to extend it forward another five years in a linear way, without making any adjustments at all, you've got to do some additional analysis. And particularly where you know that iPhone is out there and that the market for feature phones is fading away, and that a new market and a new product category are there, which is Android and iPhone.

You can't simply take something that was done at an earlier period and project it out in a linear fashion.

I'm not saying and we're not saying you can't use it as

part of your analysis. That's not the point. Sure, you can take it into account. But where this is the only thing that he has, the only basis, and where he projects it out over such a long period of time, that's what Dr. Kearl is saying is completely wrong and not standard as a matter of economics.

And so for that reason, Your Honor, we've asked the Court to exclude this aspect of Mr. Malackowski's opinion.

THE COURT: All right. Let's hear from Oracle, please.

MS. HURST: Thank you, Your Honor.

Your Honor, this very projection was used in the first phase of the case in the lost profits calculation. It was used by Dr. Cockburn, who was Oracle's expert at the time. It was also used by Dr. Cox, who was Google's expert at the time, to rely upon as a way of attacking Dr. Cockburn's calculation.

Google previously moved to exclude Oracle's reliance on this projection. And the Court denied that motion in ECF Number 685. I believe that's the second *Daubert* order, Your Honor, at 5 to 7.

Your Honor, the projection is a reliable method because it's a pre-infringement projection. And that's the best evidence that we have of what Sun thought about the market beforehand.

And I don't want to misrepresent Mr. Van Nest's position, but it sounds like the real beef here is the projection beyond

the end of the forecast, Your Honor.

THE COURT: How was it used before?

MS. HURST: Your Honor, it was used to calculate lost profits up through the time of the damages period, before the first trial, which included fiscal year '11. So it was at least one year of projection. But it was not, Your Honor, the way we've done it here, which is to bring it current to the current damages period.

THE COURT: Well, so adding one year is one thing. But adding -- how many more years? Five years or six years is another. Five years, I guess.

MS. HURST: It is, Your Honor.

To address that point, here is what the evidence would show: That Mr. Malackowski's assumptions are either that without the infringement Java would continue to capture a significant share of feature phones, which would not decline as rapidly without Android in the market, or Java would be successful in capturing a more meaningful share of the smart phone market.

Those would be the assumptions, Your Honor. And the evidence supporting those assumptions would include a history of very significant licensing relationships with the carriers and the manufacturers, including licensing relationships for SE in phones -- such as with Nokia, Your Honor -- would include internal evidence of Sun's plans and efforts to advance the

Java platform in mobile devices by creating new versions, such as JavaFX and JavaOne.

All of those were pre-infringement-discussed activities, Your Honor, that are relevant to Sun's business activity.

In addition, Your Honor, there is market-based economic information, including the fact that mobile phones were in -- the market for mobile phones was not only indifferent to the economic crisis of 2008, but improved through that crisis period and during the recovery; that the growth in mobile phones was very high during that period; and that the 8 percent projection, Your Honor, is conservative relative to the actual market performance, which was astronomical during this period of time, in light of the assumptions that -- that Sun and Oracle either would have continued to capture a portion of feature phones or would have transitioned successfully to some degree into smart phones as they were already doing with licensees such as Microsoft, Nokia, Blackberry, and others.

Your Honor, with that testimony from the fact witnesses and Mr. Malackowski, this projection is supportable as a reliable method. Indeed, the fact that it is based on a pre-infringement projection, which is then projected forward conservatively relative to what the actual market growth was, is quite supportable.

In addition, Your Honor, there was another internal projection at Sun, that Mr. Malackowski looked at, which was

from a slightly later period in time when the first Android phone was just coming onto the market. So it's less reliable in terms of a pre-infringement forecast. But he also found that that had results of even greater damages than the strategic forecast that he relied upon.

So while he looked at that as a reasonableness test, he actually took the more conservative route, which was also the projection that was relied upon by both sides the last time around and which the Court permitted.

THE COURT: Do we know in the real world what happened with feature phones during the period 2010 all the way up to 2015?

MS. HURST: Yes, Your Honor. At this point in time when this projection was made, in feature phones Java was 80 percent of the market and a billion phones. Upon the arrival of Android, it began to decline and Android began to increase. That crossover point, Your Honor, where they meet at about 40 percent of the market is in the 2010 to 2011 time frame, which was the period of damages basically from the first trial.

Then after that you have the Java-enabled phone market, which included both feature phones and smart phones, Your Honor, because there was Java in smart phones, such as Blackberrys and others, continued to decline down to the point where it's pretty much zero today, for all intents and

purposes. And Android continued up the scale to where it's at 80 or more percent today. And pretty much iPhone is about the only other player in the market.

THE COURT: I guess I -- let me tell you what concerns me and what confuses me. And then you restate whatever you need to again.

I thought this strategic forecast was for feature phones. Right? Is that -- let me just stop there. Is this for feature phones, or is this for smart phones?

MS. HURST: Your Honor, it's for total mobile. So internally at Sun they didn't necessarily make that distinction. They had licensees in the mobile category, and they were accounting for the expected performance of those licensees.

THE COURT: But the mobile line here is ME; right?

MS. HURST: Your Honor, I think that's right. I don't think there would have been any revenue yet for SE in the mobile line.

THE COURT: So --

MS. HURST: There might have been license fees for Savaje or Danger that would have been included. And Nokia, which would technically reflect SE revenue upfront license payments, not per-unit license payments.

THE COURT: I'm sorry. So are you saying that this --

MS. HURST: Your Honor, I've been handed a note. I

correct that. It is all ME. My apologies.

THE COURT: All right. So ME, is it correct that what Mr. Van Nest told me, that ME only had -- I don't know where I wrote it down -- 10 APIs, not 37?

MS. HURST: That's correct, Your Honor. ME had -- is a subset of the SE packages. And as the Federal Circuit noted in its position -- in its opinion, is a derivative work of SE. And he did have --

THE COURT: I don't doubt that. But my point is that it seemed to me that Mr. Van Nest was making the point, and in turn I make the point with you and ask for your response, which is that if it only had 10 APIs and if you're otherwise arguing how great these 37 were and how desperately the smart app -- smart phone app developers needed the 37, then how could you ever pretend that 10 were going to get you anywhere?

MS. HURST: Well, Your Honor, this goes to the two different assumptions which support the projected performance here.

One is that feature phones would not decline as rapidly in the absence of Android. But the other is that Sun would improve its platform and that it would capture a share of the smart phone market. And --

THE COURT: But to do that it would be going beyond ME then. It would be in some other way, not disclosed in this document, Sun was going to get into the broader smart phone

market.

MS. HURST: That's right. And there are other internal strategy documents at the time, Your Honor, that Mr. Malackowski relies on, that talk about their plans to basically merge ME and SE together into new profiles with greater capabilities in the form of what they call various projects at the time, JavaFX and also JavaOne.

THE COURT: Show me one good example of that, of such an email or document.

MS. HURST: One moment, Your Honor.

Your Honor, I'm handing up deposition Exhibit 1579, the Java and Wireless Business Review.

THE COURT: Okay.

MS. HURST: And, Your Honor, I will point you to -- one moment -- the page 11 of the presentation.

THE COURT: Bates number?

MS. HURST: Ending in 152, Your Honor.

THE COURT: Okay. Okay. Strengthen -- says, "Opportunity: Strengthen and enhance Java to win."

Bullet point: "Take Java to the center stage of mobile services."

Sub bullet point: "One consistent platform on feature and smart phones. A modernized Java Language and tools. Java is first citizen with visibility at the phone top level. Embrace the browser instead of resisting it."

Next bullet point: "Move Sun up and into the value chain." Et cetera, et cetera.

The next big bullet point: "Leverage Java as the platform for future CGS growth."

What does CGS mean? CGS?

MS. HURST: Client Services --

THE COURT: Group.

MS. HURST: -- Group.

THE COURT: Okay.

"Drive recognition of Java as the hidden gem already on most phones."

All right. So --

MS. HURST: And, Your Honor, there are other pages in this presentation that talk about plans to improve Java, make it more suitable for smart phones, work with the carriers and the OEMs to enhance Java's position in the market and mobile devices.

THE COURT: So let me see if I can restate your point for a moment, or part of your point.

You're saying that, yes, it's true that Sun was initially looking to use ME in the feature phone market, but at approximately the same time documents show that Sun expected to use Java more generally in smart phones. And so there might have been a point where Sun migrated over to emphasizing smart phones as the smart phone market took hold. And they lost out

on that opportunity. That's kind of what you're saying; right?

MS. HURST: Exactly, Your Honor.

THE COURT: So hold that thought and don't go anywhere.

Let me ask, Mr. Van Nest, why on our record isn't that at least plausible, that if Android wasn't on the scene at all -- let's come back to that assumption later.

But let's assume Android is not on the scene and Sun had gone down the path with feature phones, and at some point, as this '08 document indicates, they would have used Java more generally to get into -- maybe with 37 APIs to get into the smart phone market.

So that's at least plausible. It seems like these documents support that idea. So why should we rule that -- rule that scenario out?

MR. VAN NEST: It's not a question of ruling the scenario out, Your Honor. It's a question of whether there's a basis in Malackowski's opinion to do a linear straight line projection of the kind he did.

Android was already here.

THE COURT: Well, what do you think it should have been? Exponential? Or do you think it should have been going down? I mean, he's got to pick some number. He picked 8.3.

MR. VAN NEST: It's not what I think. What Dr. Kearl and Dr. Leonard are both saying is that if you're now in 2015

or 2016, right, which is where we are now, you have data from the years 2011, 2012, 2013. You need to do some analysis of the circumstances that obtained in the market after 2010 to determine whether this projection of 8.3 percent growth a year was reasonable. And Malackowski didn't do that.

Now, I would tell you that I think this -- this slide deck makes my point. This is all really speculation on their part. They were aware of Android. And, more importantly, they were aware of iPhone. Because at the time this was written, iPhone was out and selling. And they knew that. And they were also aware of Android. It had been announced. There weren't any phones yet, but it had been announced.

And what they're saying here -- I mean, just look at the verbs. "Take Java to the center. Move Sun up. Leverage Java." These are all -- these are all sales goals/aspirations. It's not the sort of economic analysis that one does if you're going to take a contemporary projection for '9 and '10 and move it out five years; right?

That's what the economists are saying doesn't meet the standard for using a projection.

THE COURT: Well, what would be a proper way to do it? Tell me how -- what is the proper --

MR. VAN NEST: The proper way to do it would be for him to have looked and seen what other projections were available, possibly take -- possibly take a blended average.

But, more importantly, look out and see what data is available in 2010, '11, '12 -- we have all that data now -- and make a more reasonable projection of what the world would have looked like, knowing, as we now know, what it did look like.

We know what 2011, '12, '13, '14 looked like. And we now know that it was completely unrealistic that Java ME would ever get there.

Java ME, this little 10-API device, was never going to be a smart phone. And they didn't have a plan for using Java SE to get to a smart phone. They were talking about operating a whole new platform.

And so it kind of proves my point. What the economists are objecting to is using just this one isolated projection -- which we don't know much about, but we do know that it's limited in time -- and projecting it out over that long period.

Obviously, back in our first trial in 2012, we were looking at a much shorter period. And, as Your Honor observed, okay, you go an extra year, 2011, it's a little harder to object.

But now, now that we're in 2016 and he's trying to project through 2015, it's just completely unreliable, as the other experts have pointed out. And that's -- that's our objection to it.

THE COURT: Let's pause for -- is it reasonable to assume that Android and Google would not have been in the

market in some fashion? Let me just throw out a couple of possibilities.

What if the Federal Circuit decision had come down somehow, or at least Google had known what the Federal Circuit decision was going to be back in 2007 or '8. I keep getting confused. When did Android come out, again?

MS. HURST: The first phone came on the market October 2008.

MR. VAN NEST: The --

THE COURT: When was Android -- when was the announcement by Sun about the rockets?

MR. VAN NEST: 2007.

MS. HURST: November 2007.

THE COURT: 2007.

MS. HURST: November.

THE COURT: Let's say somewhere in 2007, Google could see into the future and knew that what they were doing was going to be held to be illegal. Why couldn't Google have just rearranged the APIs so that they wouldn't use the same taxonomy at all?

That would have confused the app developers. I'm sure that that's true. So the app developers would be frustrated. But nobody has a right to a function. And no one can claim a copyright on A times B equals C or the square root of a number or cube of a number, or any -- a functional thing cannot be

copyrighted. I hope everybody agrees with that.

Am I wrong about that in some way?

MR. VAN NEST: No, you're not.

THE COURT: Well, let's hear what Oracle says.

MS. HURST: Your Honor, if it is both expressive and functional, then the expressive aspects are protected.

THE COURT: The expressive aspect.

MS. HURST: Yes.

THE COURT: Okay. All right. So it would have -- all right.

MS. HURST: But there was no monopoly on the implementing code. We agree with that, Your Honor.

THE COURT: I'm not talking -- I'm even talking about the declaring code. And embedded within the declaring code is a function, because the declaring code calls up these functions. That's the whole purpose of a given method, is to perform an operation.

So let's say that Google went through there and they figured out a different taxonomy. And let's say they identified every single expressive/creative aspect of the declaring code. And so they preserved the method of operation, but they wrote it in some other way so that they got totally around the Federal Circuit decision.

It would have been possible to rewrite the code and still perform all those functions, because nobody can get a copyright

on functions. The taxonomy, okay. Copyright. The declaring code, okay.

But there has to be some way to have written it in an alternative way. Otherwise, it's nothing but a method of operation, which the law says can't be done. And I don't even think the Federal Circuit disagreed with that part.

So let's say that Google figured all that out and rewrote Android, those 37, so that it was still available but it got the app developers confused. Well, maybe that means that the -- that alternative would be noninfringing. The app developers wouldn't like Android as much, and so they would not have had all the apps that they started out with, but they would have had some apps. It wouldn't be zero.

So how can we assume that Android would be a big fat zero in the -- in this analysis? That's what Malackowski assumes, is that there's no Android. And for that matter he assumes there's not going to be any iPhone. So -- right?

So how -- explain that part to me.

MS. HURST: So, Your Honor, I'll take the hypothetical that the Court has posed as Google writes a new API. So that allows --

THE COURT: Using the Java Language.

MS. HURST: Using the Java Language. So it's allowed to use the Java Language. It writes a new API.

I'm going to boil this down to two fundamental categories

of problems, which we'll be talking about in other context on these motions as well.

The first is development time. And the second is, for lack of a better word, ecosystem formation. All right.

THE COURT: Okay.

MS. HURST: On development time, Your Honor, the evidence from Oracle's experts, which Mr. Malackowski relied upon, will be that it took ten years for the Java API to become stable, and that Google got an enormous head start, like an 8-year head start, out of being able to use a long invested, tested and stable API.

So from a development time perspective, Your Honor -- and there are Google documents which say this --

THE COURT: But they didn't take the whole API. They just took the declaring -- the implementing code was all original to Google or the work for hire.

MS. HURST: And I'm only talking about the declaring code, Your Honor, and that stability analysis.

THE COURT: Okay. So the stability analysis just goes to that. All right.

MS. HURST: Yes.

THE COURT: So really, it took ten years to get there?

MS. HURST: Yeah, it took --

THE COURT: For 6,000 methods?

MS. HURST: It took ten years to get there, Your

Honor.

And as, for example, Professor Kearl testified in his deposition, the developers care more about the API than they care about the implementing code, because the API is the thing that they know and they use. It's the thing they rely upon most frequently. They don't care about the implementing code. They just need to know that it's going to work. And it's the API that gives them access to that.

So the first problem is, for Google to write a new API is going to put it out of its mobile window of opportunity. And I have a whole bunch of evidence to discuss with the Court about the window of opportunity, but basically they were beset at all sides.

They had Microsoft breathing down their neck, who had a search engine and was on mobile devices.

They had Nokia breathing down their neck, who was on high-end mobile devices. And they had one of the three maps databases in the world.

They had Blackberry breathing down their neck, which had all the functionalities of the early smart phone. And that's where Java was. Java was in Microsoft. Java was in Nokia. It was everywhere.

And so, Your Honor, even if any one of those --

THE COURT: Can I stop you?

MS. HURST: Yes.

THE COURT: When you say "Java was in there," you just mean the Java Language. You're not saying the APIs were in there, are you?

MS. HURST: No, I'm saying the APIs, Your Honor. The software application framework for Java was in all of those devices.

THE COURT: All right. So those people had licenses --

MS. HURST: Exactly.

THE COURT: Okay.

MS. HURST: Exactly. And so if any one of those had succeeded to a significant degree, either knocking Android out of the market entirely because of the delay, or, you know, capturing a significant share of what was a greatly expanding market, if any of those things had happened, then Sun would have still received a substantially increasing portion of revenues from the mobile phone market.

Your Honor, on the eco -- so there's a huge problem with their time to development with writing a new API. And, by the way, if faced with that Federal Circuit decision in 2007, they decided to do the right thing, then of course we would have gotten licensing revenues as well.

THE COURT: Well, if they had gotten licensing revenue, why isn't that just the answer? We impose a licensing revenue. That's the lost profits.

MS. HURST: Your Honor, that could be a method of calculation. It is not the one that Oracle is offering.

And the reason for that -- which I'm sure we'll discuss throughout these two days -- is that there is a Circuit split on the hypothetical license theory of actual damages. And four Circuits say there is no such thing in copyright. And other Circuits say there is such a thing in copyright.

And Professor Patry, his treatise -- he went and worked at Google, his says there is no such thing as a hypothetical licenses measure of damages.

We don't want to offer a measure of damages that might end up getting knocked out at the Supreme Court.

THE COURT: I'm sure Google would welcome with open arms such a theory; right?

MS. HURST: Well --

MR. VAN NEST: Of course.

THE COURT: Would you object to that theory?

MS. HURST: I don't know that the --

THE COURT: You run no risk on --

MS. HURST: I don't know that they would, Your Honor, because Professor Kearl's calculation of hypothetical license damages in his first report would lead us to a $6 billion damages number today. $6 billion. He --

THE COURT: The licensing fees would be --

MS. HURST: Professor Kearl's hypothetical license

damage calculation was -- in his first report, was based on 20 percent of advertising revenue, and some other elements as well.

He said Google would have paid that for any elements of the IP portfolio. And he had a projection even back then, Your Honor, that the revenue we would be at today would be 44 billion, which is frankly not far off the mark of where we actually are. And that was a $6 billion number.

So, Your Honor, nobody was avoiding hypothetical license here because it would come up with unacceptably lower numbers. There were absolutely huge numbers in the case based on hypothetical license.

But there's a Circuit split about whether this is an okay measure of damages.

THE COURT: Well, what does our Circuit say?

MS. HURST: Our Circuit says it's okay, as of last year or the year before, in the *Oracle vs. SAP* case.

But, Your Honor, we don't have to go there because --

THE COURT: I don't understand why you say there's a Circuit split. You mean you're worried the Supreme Court might take the case --

MS. HURST: Yes.

THE COURT: -- and resolve the Circuit split?

MS. HURST: You're right. Yes, Your Honor. And I'm sure Google wouldn't have waived its right to argue --

THE COURT: Well, you could then -- Mr. Van Nest has made a binding concession. I assume -- well, let me just make sure.

Is it true that Dr. Kearl said that number would come out to $6 billion?

MR. VAN NEST: No, that's not true, Your Honor.

THE COURT: Well, what is your view on that point?

MR. VAN NEST: My view on that point, Dr. Kearl is talking about a total portfolio license; patents, copyrights, all of the rights that go along with Java. And he is basing that on, you know, the entirety of the Java platform; not copyright of SSO in any way, shape, or form.

The reason they've moved away from that --

THE COURT: Wait, wait, wait. Is that, what I heard, true?

MS. HURST: I don't think so, Your Honor. I'm finding the paragraphs right now.

Professor Kearl's -- and he confirmed this in his deposition. His original report said they would have paid this for any element of the intellectual property. And the reason is because they were all gating items, Your Honor. It didn't matter which one. They needed the protection of all of them, and that meant they needed to pay for any of them.

THE COURT: You mean one little thing, as long as it was a showstopper, they would have paid that much money?

MS. HURST: I'm sorry, Your Honor.

THE COURT: I don't know the answer. I would be interested to know.

Dr. Kearl is here. I don't want you to say, "I believe." I want to know categorically what you said.

Can you answer that question now, Dr. Kearl?

DR. KEARLE: I can.

THE COURT: All right. Why don't you come up here and tell us what we're -- so we don't have to debate what you said once before. But don't guess at what you said once before. And don't give us a new opinion. We just want to know what you said once before. All right?

Dr. Kearl, welcome. Please tell us the answer.

DR. KEARLE: The 20 percent was for the entire portfolio of Java IP as negotiated in the -- what was the first phase of this trial, the so-called $100,000 offer -- the $100,000,000 offer. The apportioned value from that for the copyrights was four-tenths of a percent.

There is -- you had ruled as a matter of law that you had to apportion. There are three paragraphs in my first report in which I begin by saying, "The law may be this" -- because I had already known you had struck it -- "but here's a way of thinking about this negotiation for this entire portfolio."

And my way of thinking about it is freedom to operate.

And I think one of the parties moved that those two

paragraphs be struck, and you struck them. So that -- that was not part of my testimony. It was not part of my opinions. It was simply something that I put in there relative to economics.

THE COURT: All right. So what I -- Ms. Hurst, what I just heard was the 6 billion, even though it got struck later, nevertheless, it was for the whole package of Java IP and not just for the copyright. And, in fact, Dr. Kearl said that there was some much smaller percentage that was attributable to the copyright.

So what do you say to that point?

MS. HURST: All right. Your Honor, the three paragraphs that Professor Kearl just referred to are the ones in his original report before there was any motion practice, which was what I was referring to, that make clear that the freedom to operate meant that Google would have paid that amount for any item in the portfolio.

Now, in reality, we all know they would have bargained for the entire portfolio as well. But they had to get any of the gating items in the portfolio.

And here's what Professor Kearl said in his deposition, at page 175, lines 3 through 9.

MR. COOPER: Is this his most current --

MS. HURST: Yes, current deposition.

"Q. In that case, you concluded that your license terms, your numbers, were the equivalent of the option value for

any single item of intellectual property in the portfolio; is that right?

"A. Yes. And I think Judge Alsup excluded that paragraph."

So Professor Kearl's original hypothetical license analysis, Your Honor, which is what I said, was 20 percent of ad revenues for any single item under the freedom-to-operate theory.

And, of course, any licensing expert would come and tell you that they need to get all the items, and so they'll pay the license value for any of them that they have to get as a gating item to launch the platform.

And that, Your Honor, brings us to the second category of items of why they couldn't just write a new Java IP, which is the commercial circumstances, platform economics, and the need to establish the ecosystem. And I will be happy to address those points.

THE COURT: I want you to do that.

But, Dr. Kearl, what was the number -- you said that you allocated within that 20 percent, you allocated a percentage to the copyrights. Did I hear you right?

DR. KEARLE: It's four-tenths of a percent, as I recall.

THE COURT: Four-tenths of a percent?

DR. KEARLE: Yes.

THE COURT: And was that in the same paragraph that you referred to earlier are the first same three paragraphs?

DR. KEARLE: No.

If you look at my summary of opinions in the beginning of my report in the first matter, the 20 percent does not appear. What I did was to apportion consistent with directives you gave to the experts in the matter.

I don't want to appear argumentative here at all, but it's not clear that this report was filed before motion practice. I had the advantage, in the first phase of this matter, that you ruled on all the *Daubert* motions. And you had excluded the option value theory and the freedom to operate theory. You had excluded those in *Dauberts* before my report was filed.

The question was, in your original directive, you asked me to give you my best economic advice. My counsel and I discussed this and he said, That's what you were directed to do; put it in.

So those three paragraphs were put in, understanding that you had already ruled to exclude them. I understood that going in. I just wanted to say, Here is how an economist would think about this matter.

But the opinions that are set forth in the report do not include those three paragraphs.

THE COURT: Where do those three paragraphs get written out?

DR. KEARLE: What?

THE COURT: Where did they appear?

DR. KEARLE: They're in the report. But the summary of opinions at the beginning does not reflect those three paragraphs. I just -- I simply added, from an economic's perspective, here's how you might think about this negotiation over the $100,000,000 --

THE COURT: But the four-tenths of a percent, where did that appear?

DR. KEARLE: That is in my summary of opinions, and is developed in the report itself.

MR. COOPER: That's paragraph 25 of his March 21, 2012 report, which was revised March 28, 2012, paragraph 25.

THE COURT: All right. Okay. I'm going to ask you two to have -- to go back to your seat. Thank you.

And we're going to turn to the next subject. You have something about ecosystems. Let's go to that point.

MS. HURST: Yes, Your Honor.

So back to where we were, in the lost profits analysis, this is based on a lost licensing revenue. It's not based on a hypothetical license.

In the lost licensing revenue the Court asked the question, Couldn't Google have written a new API?

They could have written a new API. That was conceded during the first trial. And that's part of the reason why this

API is copyrightable. It would have cost -- it would have taken a long time to get it to the point where it was usable. That's problem one. So they would miss their development window.

The significance of missing their development window is that other market players were chomping at their heels. All right? So even just on that category, they may be out of the market entirely and relying on their deal with Apple, which has never been produced.

But, second of all, even if they had gotten a new API done and brought it to market, then they had to establish the ecosystem. That meant multiple things.

First, they needed to get the carriers to agree. The carriers still had control over who could get on their network at this point in time. And they didn't want just anybody getting on their network because it was a network security issue. So they had to be assured that it would be sufficient to meet their requirements. And their requirements, at that point in time, their commercial requirements were all based on the Java API that they knew and loved that was in 80 percent of the market.

Second, you had the OEMs. And the OEMs had to accept it too. And the OEMs had a built-in set of applications that they wanted preloaded on the phones that wouldn't be compatible with this new API. And they would have to write their new

applications. Which, by the way, the carriers would as well. They would have to accept that. And they would have to accept the security of the new model offered by Google.

And they also were suspicious of Google. We will see this at trial in Google's own documents. They didn't trust Google. They thought it was a big player. They were nervous about it.

So they would have -- having missed that window. Microsoft, Nokia, Facebook, Yahoo!, all these others nipping at their heels had been convincing those OEMs and carriers to accept this entirely new Java API which was going to obsolete all their existing applications, which was untested, doesn't know whether it was secure or not.

That's two of the elements of the ecosystem.

Then you've got to get the app developers on board because you need the external app developers for the smart phone. And they didn't know this new Java API.

So you had the 6 million developers and all their programs, which the evidence is clear Google was trying to exploit by using the existing Java API. And that just goes up in smoke. So now you don't know what's going to happen. Are those app developers going to sign on when, meanwhile, Microsoft and Nokia and Facebook and Yahoo! have all come in and are enjoying a much greater market position?

And then, Your Honor, there's the consumers. The consumers need to know that they're going to find what they

want on this thing. And if you don't have the carriers and you don't have the app developers and you don't have the networks, you've got no consumers. And all the advertising revenue in the world won't do you any good in that circumstance because you don't have the eyeballs.

You need all those pieces in place before you can get to the advertiser. Because the advertiser is paying for eyeballs. And you can't get the eyeballs without the apps and the equipment manufacturers and the carriers.

So they had two fundamental problems. First of all, they needed the Java API because it was already done and dusted and tested. It had credibility with everybody in the marketplace. And it would accelerate their development efforts. And that's the -- and the carriers required it.

That's what their documents say. I'm prepared to hand those up when we start talking -- now or when we start talking about disgorgement, Your Honor.

But, second, when they are out of their window and they're dealing with a different Java API, they have huge ecosystem problems.

So is it reasonable to think a modest 8 percent year-over-year growth, in light of the explosion of the smart phone market, when Java was already in the phones and was moving up market in the smart phones -- and, Your Honor, at the beginning of that forecast, the only smart phones in the market

were Blackberry. And Java was in them. Java ME was in smart phones. At that point in time, there wasn't much difference between feature phones and smart phones.

And so that is not an unreasonable assumption, Your Honor. What the law requires for a lost profits calculation is certainty in the fact of damage, and a reasonable approximation of the amount. This is a reasonable approximation. They can cross-examine, if they want, on it being extrapolated.

But Mr. Van Nest is absolutely wrong to say that what Mr. Malackowski should have done is take into account actual results during 2010, '11, '12, '13, and '14, because those are years affected by the infringement, Your Honor. That can't be right. You don't have to create your model for lost profits out of years that were affected by the infringement. You get to not have to take that into account when you're making a lost profits calculation. It's the but-for world without the infringement, Your Honor.

And it's clear, and the witnesses will testify, that Sun and later Oracle were experiencing price erosion, dramatic price erosion on the front end of the period when Android was coming into the market and its ecosystem was being established.

And then at that point where they -- in Mr. Schmidt's words in about August of 2010, he reported to the board of directors of Google, "We have reached escape velocity about Android." And it's at that point where you see Android just

crush Java the rest of the way out of the market.

And so, Your Honor, certainly Mr. Malackowski is not required to take into account market results that are deeply influenced by the infringement in making his projection.

The smart phone market exploded during this period of time. It grew dramatically. These projections, in light of where Java was in the market at the time, 80 percent, its plans for moving forward, the fact that it had established licenses for moving forward, that is a reasonable approximation of the amount of damages, Your Honor.

THE COURT: What do you say -- it's a different issue, maybe, on disgorgement. But, again, we're sticking with the lost profits.

What do you say to the argument that Open JDK could have been used? In other words, if Google had known in time that the Federal Circuit was going to rule the way it did, it would have backed up and done the Open JDK version and still been able to use all 37 APIs and -- and using this classpath exception.

So what's your -- how can you respond to that?

MS. HURST: Well, Your Honor, I believe my colleague Ms. Caridis responded to it best the other day when she gave the Court a number of documents showing that it was not a timing issue as to why they didn't adopt Open JDK; that it was a license incompatibility problem; that they believed the OEMs,

that crucial part of the ecosystem, would not sign on with that license because it would mean that they could not keep their competitive improvements to the platform proprietary. They would have to give those back by publishing them. And their competitors could see them. And that was the way they innovated. That's the way Samsung competed with LG.

THE COURT: But you're not coming to grips with what their -- the new argument is, that Google will now present a lawyer who is a copyright licensing expert who says that -- she, I believe; right? Or he?

MS. HURST: He.

THE COURT: He. That he's looked at these classpath exception. And he says that Google could have used it, just sailed right through. It was a gigantic loophole. Could have sailed right through and used all 37, and there would not have been any of those problems.

Maybe it was a mistake of law, mistake of assumption. But if they had known about the Federal Circuit opinion, they would have figured that out.

And so just like you say, it's up to the jury to figure out what would have happened in '11, and that they can go back and rewrite history too and rewrite it to discover the classpath exception.

So why isn't that still an okay way to go? If you can do it, why can't they do it?

MS. HURST: Good question, Your Honor. One I thought hard about and expected the Court to ask.

Here's the difference: A counterfactual assumption that is completely refuted by the record cannot be offered.

And there's nothing that refutes Mr. Malackowski's counterfactual assumption here. There's plenty of evidence to support it. Sure, they can cross-examine about it.

The counterfactual assumption about the Open JDK, Your Honor, is a decision that they actually did make at the time. And all the evidence about that decision that they actually did make at the time is that they rejected it. Now --

THE COURT: Well, but did they really -- give me your best document on that again.

MS. HURST: Gosh, Your Honor.

THE COURT: I don't have it out here.

I'm sorry. Too many documents in this case.

MS. HURST: I knew we should have filed those after the hearing, Your Honor. I apologize.

THE COURT: It wouldn't do any good right now. I need to actually see it in my hands right now. But is that really true, that -- here's another thing I want to know. I'm going to raise it. And that is, I think maybe I should order Google to give me the attorney-client documents that they withheld that relate to JDK, to see if they're trying to take a position now that the lawyers told them at the time could not be taken.

I'm going to review that in camera.

I'm going to ask you to comment on that in a minute.

Because I do think, at a minimum, Oracle has presented evidence from which a jury can conclude -- okay. I've got all those Open JDK documents here.

You want me to hand you back what you handed up the other day?

MS. HURST: Sure, Your Honor. And let me say --

THE COURT: If I've got any handwritten notes, just ignore them. But find the one in there that you think is the best example.

MS. HURST: And, Your Honor, while I'm looking at those -- and I'm not sure this is every single document we have on the subject -- I do want to make this point as well: They did know the APIs were copyrighted and they went ahead anyway. They knew they needed a license.

THE COURT: Well, they knew that the implementing -- isn't it -- look. One way to look at this record is this: And I'm not sure if Google actually argues it this way or not, but there were negotiations with Sun. They fell through. Google went back and figured out, well, okay, we can get around this by writing our own implementing code and the declaring lines of code; they're not copyrightable.

And no one outside the Seventh Circuit had ever heard that a taxonomy could be copyrighted anyway. That word had never

been used by the Ninth Circuit. So, you know, they might have in good faith concluded that that was okay, that that was a plausible way to go.

All right. So then later on they find out from the Federal Circuit, no, you were wrong. But at the time maybe -- so if they had known at the time, they would have. And if the internal documents show that Open JDK was a possibility -- you're telling me that they ruled it out. But when we went through it the other day, I don't -- show me where they ruled it out categorically, even where if what they're doing was illegal.

MS. HURST: So --

THE COURT: I don't think they went that far. Show me your best document.

MS. HURST: All right. So one moment, Your Honor, because that was not the focus of the presentation the other day.

But let me say two things about that point while we're getting our stuff.

First, Mr. Rubin wrote a document that said the java.lang APIs are copyrighted. He's not talking about the implementing code.

THE COURT: How do you know? To me it would be the implementing -- it would be the whole thing, the implementing code, the declaring code, everything.

MS. HURST: Because the API specification, Your Honor, was licensed separately at the time. And that was only the declaring code. And that's what they were talking about.

Do we have to get that spec license? We're going to do our own --

THE COURT: Well, did he say that in his deposition? Was he asked that question?

MS. HURST: I'll find out, Your Honor.

THE COURT: If he did, that would be pretty good.

MS. HURST: But, in addition, Your Honor, we have the Apache document. And they --

THE COURT: Well, that's Apache. That's the guy who said, We're doing something illegal.

MS. HURST: And that guy went and worked at Google two years later. So by the time he was there, which is 2010, which is before this lawsuit was even filed --

THE COURT: But after the launch, after they were already in the market, some guy -- some guy goes to Google who two years earlier he said it was illegal. Is that enough to say that at the time they knew it was illegal?

MS. HURST: Yes.

THE COURT: Oh, come on. No.

MS. HURST: Yes, because they did know. Which, we'll get the documents. But, also --

THE COURT: But what you told me is not enough. It

would maybe draw an inference, but it's not enough to prove it as a matter of law sufficient to knock out somebody's expert opinion.

MS. HURST: All right, Your Honor. Let me go back --

THE COURT: The other day you showed me better documents. So show me -- show me some of these documents that ruled out JDK.

MS. HURST: All right.

THE COURT: Isn't that Ms. Caridis?

MS. HURST: That is Ms. Caridis, Your Honor.

THE COURT: Why don't you help her -- I gave there the file of documents that you showed me the other day. And I don't have them organized in any way. But maybe you can find the one that was -- just help me remember.

MS. HURST: So Ms. Caridis is going to help me organize those, Your Honor. Meanwhile, I am going to -- they found the document for me that said the java.lang APIs are copyrighted.

THE COURT: Read that and tell me the date on that. Just read that out loud and tell me the date. Read it slowly.

MS. HURST: Sure. Your Honor, it's -- hold on one second. It's Trial Exhibit 18. An email sent -- an email exchange between Mr. Greg Stein and Mr. Andy Rubin, dated March 24th, 2006.

Mr. Stein says:

"Andy, Chris DiBona said you're the right person to talk to about our J2ME plans with Sun."

And he goes on to talk about how they want to try to create an open source J2ME.

Mr. Rubin says:

"I don't see how you can open Java without Sun, since they own the brand and IP. Happy to talk."

Mr. Stein says:

"Oh, they have a plan for that. The ability to call it Java is simply a matter of passing the J2ME TCK, as I understand it."

And that's the compatibility requirement associated with the spec license, Your Honor.

Mr. Rubin again replies:

"Ha, wish them luck. Java.lang APIs are copyrighted. Sun gets to say who they license the TCK to and forces you to take the shared part, which taints any clean-room implementation."

Now, that reference to "clean-room implementation," Your Honor, that's the implementing code. So what Mr. Rubin is saying right here in this email is, you can't go do a clean-room implementation, because the java.lang APIs are copyrighted.

Mr. Rubin knew this, Your Honor. And he had taken a license at Danger when he was there. He knew Sun's position

was that the java.lang APIs are copyrighted. Here he is in his own words adopting that view.

And then you have the folks at Apache saying, the API -- copyright on the API is hard to ignore. What we're doing is illegal and Android is illegal.

Those people were all working together. Google got the code from Apache. That was a joint project, Your Honor. They understood what they were doing was illegal.

THE COURT: All right. But what has that got to do with JDK and the classpath exception?

MS. HURST: Good question, Your Honor.

I think you asked me why there's a difference between the assumptions that Mr. Malackowski is making and what we're saying Mr. -- Dr. Leonard can't do, which is rely upon the counterfactual with Open JDK. And I said they couldn't use GPL because the OEMs would not accept it. And they had business circumstances that made it impossible for them to use.

And then I believe the Court asked me, well, Mr. Hall comes and says that's not right. Now, today, he looks at the license and says, well, they had their interpretation wrong.

And I'm explaining to the Court that you can't use a counterfactual that is refuted in the record, Your Honor.

THE COURT: But show me where the JDK -- where they did refute using Open JDK.

What you were referring to even -- even in the -- what

was -- was not talking about Open JDK in the classpath exception.

MS. HURST: All right. Your Honor, I'm going to hand back up to the Court --

THE COURT: I want to get back that folder, so don't --

MS. HURST: Yeah, we're going to get it back to you, Your Honor. Don't worry. It's coming back.

Oracle Exhibit 112 at the deposition of Mr. Bornstein where he said:

"It's not about timing so much as details. The licensing that Sun is using for both SE and ME are incompatible with Android's needs."

And that's Exhibit 112, Your Honor.

THE COURT: Okay. Let me see what.

MS. HURST: And then let me have that depo excerpt. And then this is Bornstein; right?

MS. CARIDIS: This is --

THE COURT: This is in '06, November '06.

"I forgot to ask you the other day, will Sun's recent announcement about open sourcing Java happen soon enough to benefit Android?"

Response from Bornstein:

"It's not about timing so much as details. The licensing that Sun is using for both SE and ME are

incompatible with Android's needs. I'm happy to talk further about it in person."

But, see, that's not -- the licensing that Sun is using for both SE and ME, that's -- we're talking about, I thought, Open JDK.

MS. HURST: Yes, Your Honor. And that's what that's referring to. It wasn't called Open JDK yet, but it was the open-source version.

So if you look at the subject line in the email, there's a reference to open source.

THE COURT: Well, all right. Maybe. You can draw the inference from this that they -- somehow in '06 they knew all about the classpath exception. But it doesn't call that out and specifically analyze it.

MS. HURST: There are other documents that do, Your Honor.

THE COURT: All right. Show me a good one --

MS. HURST: Sure.

THE COURT: -- that says classpath exception won't get us where we need to be.

MS. HURST: All right. Let me -- can I hand up this piece of testimony that doesn't -- it just says we can't use GPL code? Hold on. And then I'll find one that says classpath exception.

This is Mr. Bloch's testimony. And it's about deposition

Exhibit 215. It was an email he was on. This is at page 206, lines 8 through 21.

"**Q.** You write on December 7, 2009, 'Jessie, eww, you put your hand into the buzz saw.'

"**A.** Uh-huh.

"**Q.** Josh, why did you write that?

"**A.** Because he mentioned sort of a verboten topic.

"**Q.** What was the verboten topic?

"**A.** Using Open JDK instead of Harmony in Android.

"**Q.** Why did you regard that as a verboten topic?

"**A.** Because I had heard it discussed before. And quickly the discussion would always end with, you know we can't do that. Our partners can't use GPL code other than the Lennox kernel itself."

And that was the testimony, Your Honor. So now I'm going to find the one that says -- oh, I'm so sorry.

THE COURT: We'll get it. It's all right. We'll get it at the break.

MS. HURST: All right. I'm sorry, Your Honor.

THE COURT: It's okay.

MS. HURST: The lawyer-advised consensus. That means they knew the terms of the license, Your Honor.

Let me just find -- do we have that one in here?

THE COURT: You said you were going to give me one that says open path is not good enough. Get as close as you

possibly can to it.

MS. HURST: All right. Your Honor, here is Exhibit 156, which makes clear that they understood it was GPL2 plus classpath exception. It refers to that specifically. This is Trial Exhibit 156, between Mr. Boies and Mr. Turner. And the Android team is copied.

THE COURT: Okay. Wait. Let me look at it. This is '06.

"Here is the current word: Unmodified GPL2 for our SE, ME and EE code. GPL2 plus classpath exception for the SE libraries." And then it goes on with more explanation. And third paragraph:

"I would be happy if we can just drop in their libraries, but still not sure it's compatible with their licensing choices."

So it's just from someone named Cedric to David Turner.

MS. HURST: And then --

THE COURT: And then Turner says on -- maybe same day:

"Very frankly, I wouldn't be surprised if the classpath exception did not cover ME. There are millions of royalties to be made in cell phones, set top boxes and even Blu-ray players, including the PS3. Yes, all interactive features of Blu-ray require a JVM along with the standard J2ME class libraries. Though, I doubt it would be enough to pay back their investments in Java in

less than 20 years."

So what's your interpretation of this?

MS. HURST: Your Honor, that document I'm offering for the proposition that they understood what the licenses were at the time that they were having these exchanges internally about whether they were acceptable or not. That one is copied to the whole Android team.

And, Your Honor, as Ms. Caridis mentioned the last time when we were here on this, Sun announced what licenses it was going to be using, even though it wasn't called Open JDK yet. They announced it. Everybody understood which versions they were using. That was publicly available on the Sun website in a document called an FAQ. You know, frequently asked questions. And it said, we're going to use GPL Version 2 for ME and with classpath exceptions for SE.

Is that right? Yeah.

And so, Your Honor, all these emails, they understand exactly what the licensing scheme is going to be. And now here we are a year later, Your Honor, on this next one, Trial Exhibit 415, February 26, 2007, Mr. Bornstein, who's the tech lead for Dalvik and the core libraries in the Android stack, says -- and I'll hand this up. I highlighted it for the Court.

"We talked about using GNU Classpath." That's the classpath exception. "But we ended up deciding against it. On the licensing front, although classpath would

probably be okay in my opinion, the lawyer-advised consensus is that there is potential for trouble."

So this was not -- they got legal advice on this, Your Honor.

THE COURT: But what does "potential for trouble" mean?

MS. HURST: So, Your Honor, here was the thing about the viral effect of GPL: Nobody wanted to take any kind of a risk that their code could get under it and then they would have to publish it. It was like a doomsday scenario to get under that viral provision. And so nobody wanted to get anywhere near it. They needed to know that they didn't face that risk.

And so this was the kind of situation where the lawyers would tell clients: I can't give you a clean bill of health on this. And if you don't have a clean bill of health, I can't guarantee that some day you're not going to have to publish that source code.

Nobody, none of those equipment manufacturers wanted to take that risk. And Mr. Rubin testified to that in his deposition. And he made a public interview about Samsung, in October of 2008, when he said, quote, "The thing that worries me about GPL" -- I just lost it here.

Ms. Caridis, can you come back and help me? Where did it go?

"The thing that worries me about GPL is this: Suppose Samsung wants to build a phone that's different in features and functionality than one from LG. If everything on the phone is GPL, any applications or user interface enhancements that Samsung did, they would have to contribute back," Rubin said.

"At the application layer" -- which is what we're talking about here, Your Honor. He says, "At the application layer, GPL doesn't work."

Now, Your Honor, we have a lot of documents --

THE COURT: But he doesn't say GPL with classpath exception won't work.

MS. HURST: No, but he's talking about Google's decision to offer their -- their platform under the Apache license. And when they -- are you going to get this for me, the blog post?

When they released that decision in November of 2007, when they released the SDK, they released the Android development kit for the first time. They said we chose Apache over GPL Version 2 and they linked that to an article explaining the benefits of Apache over GPL Version 2. And the article says right in it, Your Honor, "We couldn't use GPL Version 2 because it would be unacceptable to the handset manufacturers."

This is a consistent story that they told throughout all of their documents and interviews and testimony. It's

absolutely consistent, Your Honor.

And what is not present before the Court is any single iota of evidence from Google to the contrary. Not a single iota of evidence.

THE COURT: All right. Let me ask the other side a couple of questions. Thank you.

Do I now have back all the --

MS. HURST: That is -- except for the one we dropped, Your Honor. And I'm going to get it.

THE COURT: Okay. We'll deal with that at the break.

All right. I have two questions for Mr. Van Nest. Then we're going to take a short break.

One is -- in fact, I'm just going to ask you-all to -- by tomorrow evening, at 5 o'clock, to submit briefs on whether or not I can, in aid of ruling on this motion, require Google to show me in camera, without showing the other side, the lawyer advice that was given on the Open JDK point and the classpath exception, and why that would or would not have worked, if there are any such documents. But it looks like from the privilege log there probably are.

But, anyway, the document that says "lawyer-advised consensus" certainly indicates that Google had lawyers advising it on that subject. So that's point one.

MR. VAN NEST: You want that by 5 o'clock, you said, Your Honor?

THE COURT: Tomorrow.

MR. VAN NEST: Tomorrow.

THE COURT: Can you do that by then? I mean, it sounds like -- I'll give you another day. But, you know, we're on a train that is heading to May 9th. And a jury will be sitting in that jury box over there. And I'm going to try by then to have made most of the decisions. I can't promise I will have made them all. But I -- so time is of the essence.

MR. VAN NEST: Understood. If you can give me another day --

THE COURT: Okay. What is today?

MR. VAN NEST: Today is Tuesday.

THE COURT: You get until Thursday at 5 o'clock.

MR. VAN NEST: Can do. Can do.

THE COURT: How about you?

MS. HURST: That's fine, Your Honor. We can do it too.

THE COURT: Both sides five pages.

All I'm interested in is the procedural question of, can I make them disclose the privilege as a condition of trying to argue this point? Because what if it turns out that the documents were just categorical against, or if not categorical advising against doing this, doing the classpath exception thing, then that -- that would be troubling to me. And I would like to know what the law says on this point, which I haven't

looked at yet.

There are several ways it could come up. One would be, well, when the expert lawyer comes on the stand and says, "Well, the classpath exception would be just dandy," wouldn't it be okay for Ms. Hurst to say, "Well, that's well and good, but have you looked at what they actually said at the time, the lawyers actually said at the time?

"Well, no, I didn't look at that.

"Well, would it make any difference to you that they might have thought it was illegal?

"Well, I don't know."

What's he going to say to that? There's no good answer to that. So --

MR. VAN NEST: We'll get you a brief, Your Honor.

THE COURT: I'd like to see the briefs.

Question number two is -- and then my -- I just cannot remember well enough now. You answered this question the other day, I think. But maybe when we come back from the break, what evidence could possibly be in front of the jury that would indicate to the jury and from which the jury could reasonably conclude that JDK was a viable option? And I'm talking about the memos and the emails at the time in question. That the Open JDK with the classpath exception would have been an alternative way to go.

I've seen indicators in these records that it was not a --

not plausible; that the lawyers were advising against it. Or at least there was a problem. But are there other documents that we can look at where -- say something like this. And I'm making this up. Open JDK is a viable alternative. "We could have done that a year ago, but, in fact, we're so far now into this other way, we'll just continue with the other way."

Even a statement like that would be of some plausible benefit to show that it was an open question.

Anyway, try -- and what I'd like to have -- you know, the real documents. You hand them up to me. Just hand them up to me, and we'll go over them one at a time when we come back.

But what I'm not so interested in is the fact that you did this way after the fact. The Open JDK that you -- you announced last November, I'm not sure that's going to come into evidence because of the delay. So don't -- don't try to persuade me with that scenario.

But what you could persuade me with are documents from the time in question that would indicate that Open JDK with classpath exception was viable, and maybe there was a timing issue, but -- that's what you keep telling me, it was a timing issue. But that's just you talking. Where is the document that says that?

All right. We'll take a 15-minute break.

MR. VAN NEST: Thank you, Your Honor.

MS. HURST: Thank you, Your Honor.

(Recess taken from 8:02 a.m. to 9:39 a.m.)

THE COURT: Okay. Let's hear the answer from Google.

MR. VAN NEST: Excuse me, Your Honor. I apologize.

THE COURT: All right. Ready to go?

MR. VAN NEST: Ready to go.

THE COURT: All right.

MR. VAN NEST: I don't have today an internal Google document that says something like the one you posed, but we will look and see what there is.

A couple of points, though. First of all, when the documents that you saw earlier were discussed by Mr. Kwun last week, and one of the things that came through was that the issue in '06 was, what exactly was Sun going to do, and what license terms would apply to what license, to what version of Java?

In '06, Google was considering using Java ME as the basis for Android. And that was shown in the document that Mr. Kwun held up, the slide deck. And, of course, Java ME doesn't have a classpath exception. It wasn't ever released with a classpath exception. Doesn't have it still today. It's Java SE that has classpath.

The documents that do exist from Sun, at the time they released Open JDK, make clear that you can do exactly what Google is now doing with Open JDK. There was an FAQ. And it's quoted in Mr. Hall's report. I'll hand it up in just a minute,

Your Honor.

But they were asked: "What license did you choose for Open JDK?"

And their answer is: "GPL Version 2 for the virtual machine." So, of course, the virtual machine doesn't have the exception. "And GPL Version 2 plus classpath exception for the class libraries." That's what we're talking about in our case. "And those parts of the virtual machine that expose public APIs."

"What is the classpath exception?" is the question.

"The classpath exception was developed by GNU classpath. It allows you to link an application available under any license to a library that is part of software licensed under GPL Version 2" -- and here's the key language -- "without that application being subject to the GPL's requirements to be itself offered to the public under GPL."

So they're explaining that you can link to Java SE without exposing your additional software elements to the requirement that they be offered back.

And then they're asked: "Why did you choose this licensing method?"

"Well, this is the licensing paradigm in common use within free software communities. We consciously chose the same licensing method so there would be no temptation to second-guess Sun's intention to make its SE implementation

available under a genuinely free and open license, and to allow easy collaboration," et cetera, et cetera.

THE COURT: What is the document number, exhibit number?

MR. VAN NEST: This is the FAQ, which was originally posted -- I have -- I have a Bates number, but I'll give you a document number. The Bates number is GOOGLE 221 and 316. I'm reading from -- from an excerpt of it here in the Hall report.

So I would also remind Your Honor --

THE COURT: What was the date of the FAQ?

MR. VAN NEST: It's in June -- it's sometime in 2006. It was announced at JavaOne 2006 2006. It was sometime shortly thereafter.

THE COURT: Well, if that was known back in 2006, then why did Google write those emails that said that it was problematic?

MR. VAN NEST: Well, because it wasn't clear -- as you noted in the emails this morning, it wasn't clear what license would apply to Java ME. And at the time that this was announced, what Google was looking at in terms of using in Android was Java ME. And ME never got the classpath exception.

Now, as it turns out, what Google ultimately used in -- with respect to these 37 APIs, of course, is Java SE. And Java SE, when the Open JDK was published a year later with all the source code, the implementing code, then Java SE did come

out with classpath exception.

Mr. Ellison and others testified in the trial that GPL would have been available to Google for use. Mr. Ellison was asked point blank, Would the Open JDK license had been available to Google back at that time? And he said absolutely.

So it -- I'm looking for a document, Your Honor. And I'm looking for a non-privileged document that discusses --

THE COURT: It doesn't add up, though. Something doesn't add up to me here.

All right. So you say that whenever the FAQ came out, Google was considering ME.

MR. VAN NEST: Right.

THE COURT: All right. But at some point you switched from ME to SE. And when was that?

MR. VAN NEST: Sometime in 2007, I'm sure.

THE COURT: Okay.

MR. VAN NEST: Because we saw -- we saw the Noser -- we saw the Noser email, which directs Noser to help us write code for Android. And that's in the spring, March or so of 2007.

THE COURT: So --

MR. VAN NEST: So at some point -- but -- but let's remember you've got -- you've also got the complexity, which we saw the other day, that the DVM, the virtual machine, also was not subject to the classpath exception.

And, you know, when the parties were negotiating, the whole idea for Google -- as you've observed, and you're right, the whole idea for Google was to avoid having to do all the implementation codes and everything else, and get the virtual machine and all the implementing code and the Java Coffee Cup and all that, get all that from -- from Sun so you didn't have to do everything yourself. And, of course, that never happened.

Now, the virtual machine, I'm not sure it ever came out with a classpath exception. So we developed the Dalvik virtual machine, which was the subject of the patent claims last time. And now we have an even newer and different version than that.

But I think our showing on this subject would be through their witnesses, like Simon Fipps, who was there at the time at Sun, like Mr. Schwartz, who would be a witness in this trial, like Mr. Ellison, who conceded that Open JDK was out there.

And the documents will largely be Sun documents. Now, there may be some inside Google and we're looking to see what we have.

THE COURT: Look. I want you to stick with the inside Google story. And I still don't see what was going on in the mind of Google.

MR. VAN NEST: Well --

THE COURT: Wait, wait.

MR. VAN NEST: Excuse me.

THE COURT: Let me lay out for you the scenario that troubles me, and see if you can answer it.

So the FAQ comes out in 2006. And let's assume that the way you read it is totally consistent with and word for word what Mr. Hall is going to say.

All right. So then when I ask, okay, at that point why didn't you switch over and use Open JDK with the classpath exception? the answer is, Well, at that time Google was going forward with ME. So ME didn't have the classpath exception, so we -- it didn't do us any good.

All right. I accept -- at least for the sake of argument, I can see what you're saying there.

But by March of 2007, Google had made a switch and gone over to SE. And I think we know that because of the -- I think you called it Noser, the implementing code had been -- we're going to do the implementing code for the APIs. So that was SE, not ME.

So sometime in that time period between the FAQ of '06 and March of '07, Google was no longer on the ME track. It was on the SE track.

And at that point it would seem to me that somebody at Google would be saying: Wait a minute. Wait. We don't have to worry about hiring somebody to do implementing code. We can just use the -- according to the FAQs, we can just go ahead and use Open JDK for the library part. And then we'll develop our

own Dalvik machine like we were going to do anyway. But this way we won't have to waste the time to do implementing code. We can just use the tried and tested code, since it's all going to be under the Open JDK classpath exception.

That's -- to me, that's a --

MR. VAN NEST: Your Honor --

THE COURT: To me, that's a gigantic problem with your story.

MR. VAN NEST: There's a couple of missing -- there's a couple of missing parts there.

THE COURT: All right. What am I missing?

MR. VAN NEST: One missing part is that they were -- as you know from the emails, they were evaluating how open these licenses can be. And Apache, the license that Google did elect, was well-known and supported by a lot of the business community.

So, IBM was using Apache. I think Oracle, at that time, was using Apache. Other big players were already on and using Apache and comfortable with that license.

And Open JDK was brand, brand-new; right? And nobody was supporting Open JDK at that point because it was brand-new.

So one of the things that we discussed the other day, I think it's true, is that there was a discussion about which license and which licensing protocol would be better.

As Your Honor knows, up and down the Android stack there

are different licenses. The GPL applies to some, and Apache applies to others.

And so I think the bottom line was that Apache had the support of the community. It was well-known. It was out there. It was, sort of, tried, true and reliable. And that's what they did.

And then, of course --

THE COURT: But Java SE was even more tried and true.

MR. VAN NEST: Not really. I mean, Java SE was not in -- you know, hadn't been successful, as far as anybody knew, outside of desktops and laptops; right?

Even Google, when they started looking at this, thought ME might be better because it was smaller. It was the 10 API version. But, of course, it turned out that was no good either because it was too small and didn't have the capability.

So it's not that Java SE was not the greatest and latest for -- for this. Sun tried to use it to build a smart phone and failed. Oracle tried to use it to build a cell phone and failed. And they gave up. And now, of course, they want credit for Google's success. But --

THE COURT: You can make that argument. That's just an argument for the jury. That's not going to get us anywhere. I'm trying to understand the decision inside Google.

MR. VAN NEST: I think --

THE COURT: And I still don't buy what you're saying.

You're saying that -- had they already signed some kind of binding contract with Apache --

MR. VAN NEST: No.

THE COURT: -- that precluded them --

MR. VAN NEST: No.

THE COURT: -- from considering an Open JDK?

MR. VAN NEST: I don't think so.

I think, though, that it was certainly the case that Apache and the Apache license had been accepted by the business community, and had supporters that were contributing to it, including some big ones. And -- including Google as well. And, therefore, because it was extremely permissive and there was no risk at the time, anyone felt, of any sort of adverse reaction --

THE COURT: Well, there's an internal document. The guy says it's illegal, the guy who later came to work at Google. So somebody felt it was illegal.

MR. VAN NEST: Well, but nobody -- perhaps he did. I don't know. But I can tell you that none of the rest of the world did. And certainly Sun didn't. Certainly Sun didn't.

THE COURT: Are you representing that none of lawyers thought that? I don't think you're going that far, but you should be clear --

MR. VAN NEST: I'm not going to disclose privileged communication.

THE COURT: All right. So --

MR. VAN NEST: But I will --

THE COURT: What you just said is consistent with the people -- the business people thought it was legal, but the lawyers thought it was illegal.

MR. VAN NEST: I can tell you this: I asked Mr. Kwun to look at their privilege log and documents immediately after we got back last week. And there isn't any problem. 99 percent of what's on their log has nothing to do with this issue. Nothing.

THE COURT: Whose log?

MR. VAN NEST: The log that -- our log. The log that they were talking about last week.

THE COURT: Well, then maybe you can turn those over and show -- prove to me there's absolutely nothing there that would be a problem.

MR. VAN NEST: We'll certainly look at that as one option, Your Honor.

But getting back to where I was, I think the answer is that the Apache license was, A, permissive; B, acceptable; C, well-known. And Open JDK was brand-new.

THE COURT: But, see, the way you phrase that is this is lawyer reconstruction of what happened.

Surely there must be -- this is what I want you to look and provide to me. Surely there must be, with all these

emails, somebody within the company at Google which says, Remember those FAQs? They want -- they're allowing us to do exactly what we want to do on the APIs. And we'll build our own machine, Dalvik machine. But we want to use -- for APIs we'll just use the classpath exception. And that's a home run for us. We won't have to write anything. And we don't need Apache.

MR. VAN NEST: Well, we will look. We will look.

THE COURT: But, see, what you're doing is trying to -- I mean, I know you're going to have a better argument than that for the jury because at some point the jury is going to want to know what was the decision-making process within the company to get to this point where you were actually writing thousands of lines of implementing code rather than just go do this easy thing, that you now say is easy, the FAQs.

MR. VAN NEST: I don't say it's easy. But compared to 8.8 billion it's easy.

It took several months to take Open JDK and modify it and make it suitable for Android. It took several months of engineering time. And, of course, back in the day where they were well along with all of Android, nobody felt that, you know, taking that path was a good one.

So, you know -- but, again, you're talking about counterfactual, where we knew then what the Federal Circuit was going to say many years later. And, as we all know, when we

did what we did, openly and publicly, Sun applauded it. And Sun said this is one of the things that is rising on the tide with all the other boats. And we welcome Google to the community. And we hope that -- you know, wish you success. And we're going to help you get there with some software from Sun.

THE COURT: Okay. See, now, those are good jury arguments.

MR. VAN NEST: So --

THE COURT: But it's not right on my immediate point.

MR. VAN NEST: So, in any event --

THE COURT: Okay. I'm going to just end by saying I want you to look through your documents and supply me with -- so right now you haven't -- I'm just going to say it. Within Google there is not one shred of evidence that Open JDK was viable.

You're pointing to the other side and saying they said it was viable. All right. That's possibly worth something. But within Google itself it seems like there's not a shred of evidence that -- that Open JDK was viable -- was considered a viable option.

You know, it could be as simple as, well, do we do Open JDK or do we do this other thing? We're with Apache and IBM.

So that would be okay. That's your spin on it now, but no documents actually say that.

MR. VAN NEST: Well, but I don't want to say there's not a shred of evidence.

Mr. Rubin will testify about this. He will testify about --

THE COURT: Everybody will testify after the fact. Maybe -- all right.

When did he first testify about that?

MR. VAN NEST: Well, he testified about it in the trial back in 2012. So perhaps in his deposition as well.

THE COURT: All right. Maybe. I don't know.

MR. VAN NEST: I don't remember the deposition.

THE COURT: But it seems strange that he wouldn't have put that in an email somewhere.

MR. VAN NEST: Can I make one other point?

THE COURT: Make one other point. And I'll give Ms. Hurst --

MR. VAN NEST: We're talking about -- as I understand it, we're talking about Mr. Malackowski's opinion on lost profits.

THE COURT: Right. We're going to come to disgorgement in a minute.

MR. VAN NEST: And I've made the -- the points I think I need to make on that, except I would say that I don't think even Mr. Malackowski believes that Android would not have existed in some way, shape or form.

I mean, in his deposition he conceded that because it was important and because getting into the mobile market was an important goal for Google, whether they used the 37 APIs, the declaring code, and the SSO or not, there would have been an Android in some form or another. Maybe less successful. Maybe later in time. But there would have been an Android. That's his -- even he concedes that Android would have been here.

And, of course, if what Ms. Hurst says were true, how did Apple get to where they got? Apple got there with no Java. They're talking about the ecosystem and you had to have this and you had to have that, and no carrier would ever consider it, and no OEM.

Are you kidding me? Apple did it without one scrap of Java anywhere on the phone. And they got their own ecosystem with their own folks and their own OEMs and their own carriers and have one of the most successful smart phones in the world, without any use of Java at all. Their phone is written in an entirely different language.

And Google could have written Android in an entirely different language too. There's nothing about Java that makes it absolutely critical to use in a smart phone, because Apple has proven that in spades. So that's just not consistent with the facts.

THE COURT: But the version that Ms. Hurst says is that the Google document showed that they felt there was a

window of opportunity. They had to hit the window of opportunity. They wanted to capitalize on the Java app-developer community. And the only way to do that was to come out with Android the way you did come out with it. And, as you put it the other day, it was a timing problem. So they get to market first.

And so maybe there would have been an Android, but it might have wound up being like the Blackberry and kind of go by the boards.

MR. VAN NEST: So that's why -- that's why you look at those counterfactuals; right? Because no -- none of the experts -- Malackowski, in his lost profits analysis, apparently assumes that Android wouldn't have been there. But, in fact, we know it was there. And we have all the data.

That's why Dr. Leonard and Dr. Kearl, they look at what actually happened and say, well, okay, if -- if -- if the world had been different, then maybe Java ME would have sold more, because Android would have sold less. And so let's give them credit for handsets that were sold using Android. Let's give Java ME credit.

And that's why the -- the other two experts are in the range of 85 to 87 million in lost profits. I think -- I think Dr. Leonard has a couple of lost profits opinions, but one of them is around 85. And I believe Dr. Kearl is around 87 million. Because they're looking not at this one-year

projection and making some completely unrealistic assessment.

They're looking at what happened in the market and saying, Okay. If we assume that you couldn't use the SSO and you couldn't use the declaring code, then perhaps ME would have done better because Android would have done worse. And here's the lost profit numbers.

But they're both in the range of 85 to 100 million, not 475 based on this one projection.

And that's all I'll say on the lost profits, Your Honor.

THE COURT: Ms. Hurst, we've got to move on. Rebuttal.

MS. HURST: A couple of things. A couple of things, your Honor. I'm handing up to the Court Appendix S to the expert report of Dr. Kemerer, who is one of our technical experts, Your Honor.

THE COURT: Okay.

MS. HURST: This is on the Open JDK point, Your Honor.

This is a chart of the 37 packages that are at issue because they're in Android. So the mere fact that it appears on this chart means it is in Android, Your Honor. That is the list in this column, 37 at issue. Right?

Now, this shows you where those packages can also be found in other -- in the versions of Java platform. So, as you can see, all of them are found in Java SE. But many of them are also found in versions of Java ME.

And when we get to disgorgement, Your Honor, we'll see some documents that I'll show you that will explain why this is the case.

But, look, what Google took, which they called "the good stuff" in their documents, was the stuff that was adapted already for mobile phones. That is the declaring code in SSO that went with ME. And then some additional stuff out of SE that was useful because the phones had become more powerful and were capable of running that kind of stuff.

So on this whole licensing thing, there is absolutely declaring code from ME in Android. Not just SE. ME. It's the same code.

THE COURT: But I don't get your point. If it was available under Open JDK -- let's assume, for the sake of argument, that they could have used Open JDK, and then all 37 would be available under there.

MS. HURST: No classpath exception for the stuff in ME, Your Honor.

THE COURT: But the fact is -- but that doesn't make any sense. Java SE 5.0 was going to be open -- under Open JDK with classpath exception; right?

MS. HURST: That was if you downloaded the whole platform, Your Honor, and you took all the binaries and you took the implementing code, and you were using the whole thing, and then you could go modify it.

But for ME, that was not the case. ME --

THE COURT: What do you mean if you modified it? Why couldn't they modify it by stripping out everything except the 37?

MS. HURST: Well, they could. But they would have to republish. They would have to give back modifications, Your Honor.

So let me focus just on SE first, and then I'll explain the significance --

THE COURT: The classpath exception says --

MS. HURST: No. No. That is not what the classpath exception does, for two reasons.

The first reason is classpath exception only applies to binaries. That is compiled class libraries in the form of object code. And Android is distributing its platform in source. So absolutely out of the box, disqualified from using the classpath exception. Just start right there.

Second, Your Honor, even if it was made based on what Mr. Van Nest read, even if it was okay for the application developers, what we're talking about here are the handset manufacturers. That's what I've been talking about the whole time. This license was unacceptable to the handset manufacturers. And that's what the excerpt I read from Mr. Rubin said. And the reason, Your Honor, is that this stuff is in the core libraries in Android.

So if Samsung wants to put Samsung Pay in its phone and use the near field chip reader and add a whole new capability that relates to the device characteristics, they have to modify the core libraries. If LG wants to offer an improved dialer or text or some other basic phone application, they modify the core libraries.

This is not about whether app developers can write apps and still own them. It's about the fundamental cog in the ecosystem that they had to have, which was the handset makers. And they do modify the core libraries. And we know that because we reverse engineered it. Our Dr. Schmidt reverse engineered it, an HTC phone, and he found modifications to the core libraries.

And the only reason we did that was because they are now saying, Well, this is what we would have done before. Right? Otherwise, we wouldn't be offering that evidence. Nine witnesses to testify about this.

But putting that aside, Your Honor, this is about handset manufacturers. It's not about application developers.

THE COURT: All right --

MS. HURST: So, in any event, Your Honor, one more point on JDK.

THE COURT: I've lost your point.

MS. HURST: All right. One more point on Open JDK.

THE COURT: I thought you were trying to explain --

this is as far as I got.

I asked you why the classpath exception wouldn't have allowed all 37 APIs to be taken over to Android.

And you said, no, the ME -- ME did not have classpath.

And I said, well, okay. Maybe for 10 or so they didn't have classpath, but we're talking about the 37. And if you used Java SE 5.0 with classpath exception, you would be able to take over all of them under the classpath exception.

And then -- so then to that you said, no. You went to a different distinction. Then you said "compiled" versus "source code," and that the classpath exception applied only to compiled code, and that Android was distributed in --

MS. HURST: Source.

THE COURT: -- source code.

So where does it say in the classpath exception that one could be compiled?

MS. HURST: It's the GPL part, Your Honor. The GPL part says --

THE COURT: Well, okay.

MS. HURST: Okay. But let me --

THE COURT: Is this going to be so many steps of logic --

MS. HURST: No.

THE COURT: -- that I can't follow it?

MS. HURST: No.

THE COURT: So if it's so obvious, just give it to me in one or two sentences.

MS. HURST: All right. Then let me answer the Court's first sentence, if I may.

And Ms. Caridis is going to help me on the answer to that last classpath exception question. She is going to get the language for me.

THE COURT: Who's going to do that?

MS. HURST: Ms. Caridis, who was here the other day.

THE COURT: All right.

MS. HURST: Your Honor, the point on this chart is it's under -- 10 or more of these APIs are under a more restrictive license even than the classpath exception.

THE COURT: Yeah, but it's the same API. It's the same -- look. Let's just take an example.

Number 3, java.io. Java.io is available under all of them. So, okay, under ME it's more restricted. But under SE it's unrestricted.

So why are you assuming that it has to -- if it's under ME, it has to be the most restrictive license?

MS. HURST: I don't. But what I think, Your Honor -- and I hope the Court does conduct an in camera inspection. And I hope the Court orders them to produce anything on their privilege log that's related to this, not just what we had to guess from our little excerpt.

THE COURT: Well, that's what I want, anything that has to do with this subject of using Open JDK.

MS. HURST: Right. So my guess is, their lawyers at the time, they really made a full evaluation of this. As the lawyer-advised consensus suggests, the email suggests, is that they would look at this and say this is a huge problem. Even if we thought classpath exception was okay, which we don't -- and I'll read that to you in a moment -- at least some of these packages don't have a classpath exception. And Sun's going to take the view that the more restrictive license applies. And this is going to be one big mess. And there's --

THE COURT: But I thought every single one of these 37 were under the classpath exception under SE 5.0.

MS. HURST: Not when they're in ME.

THE COURT: Ahh, read to me where that exception comes out.

MS. HURST: Yes, Your Honor.

THE COURT: Where the GPL says if it's under ME, you can't --

MS. HURST: No, that was what Mr. Van Nest was reading, which was Sun's FAQ, which said we're releasing these under different versions.

THE COURT: Yeah.

MS. HURST: Let me read the classpath exception, Your Honor. The classpath exception says: "As a special exception,

the copyright holders of this library give you permission to link this library with independent modules to produce an executable" -- "executable" -- "regardless of the license terms of these independent modules and to copy and distribute the resulting executable under terms of your choice."

That gives you an exception for distribution of binaries, Your Honor. Executable code, not source code. So I will bring --

THE COURT: Go back and read the FAQ thing so I can -- read that to me again.

MS. HURST: I think Mr. Van Nest had that one, Your Honor.

THE COURT: Well, please read that to me so I can have that in mind.

MR. VAN NEST: "What is the classpath exception?" That's the question.

"The classpath exception was developed by the Free Software Foundation GNU Classpath project. It allows you to link an application available under any license to a library that is part of software licensed under GPL Version 2, without that application being subject to the GPL's requirement to be itself offered to the public under the GPL."

And then it goes on and they ask:

"Why did you choose this?" And there's some discussion about why they chose it. But the key language about what it is

is what I read.

THE COURT: Is there any language about executable in any of the FAQs?

MR. VAN NEST: I haven't studied them top to bottom. There isn't such a thing in what I'm looking at right here. But I'm only looking at three questions and answers, so I'm not looking at the whole thing.

But this statement that I read is -- was made available by Sun in connection with JavaOne sometime in 2006.

MS. HURST: Your Honor, the application developers released their applications in executable form. If you go download an app on your smart phone from the Android Play Market or the Google -- or the App Store, Apple App Store, you get an executable file. And linking is what you do when one executable calls on another executable, another binary.

So that language that Mr. Van Nest was reading is about executables, telling the developers that when they go load a app somewhere, they're not going to lose -- they're not going to lose the proprietary nature of their app. That doesn't work for the OEMs because they have to modify the core libraries which are filled with the Java packages.

I'll bring this back around to lost profits, Your Honor. I think the Court has rightly put its finger on an issue, which is the experts here are coming and they're relying on assumptions. In order for their methodology to be reliable,

their assumptions have to reach some reason -- threshold of reason that does not disqualify the methodology as being unreliable.

So the question the Court faces across all of this is: When are the assumptions acceptable and when are they not? When is the assumption so unreasonable that the method becomes unreliable?

Projecting forward a forecast under the legal standard, certainty of the fact of damages, reasonable approximation of the amount based on market circumstances at the time and the company's microeconomics, its circumstances at the time is not so unreasonable.

Relying on a counterfactual situation that was actually rejected by the company at the time as commercially unsuitable would not even pass the *Grain Processing* test, Your Honor, if this was a patent case and *Grain Processing* applied. *Grain Processing* itself says you can't just switch later and say you would have done it sooner. You've got to show me it was technically feasible and it was acceptable to purchasers.

And that is where Open JDK falls down. It was not acceptable to purchasers. All of the evidence shows that Google believed it was not acceptable to purchasers. They've not produced one iota of evidence contrary to that proposition, Your Honor.

And that is when an assumption is so far out of bounds

that the methodology becomes unreliable.

THE COURT: All right. I don't want to hear anything more, except by the time -- when you also submit your briefs in two days on the legal issue, Google should submit any emails or internal memoranda that shows Google thought that Open JDK was at least a contender.

MR. VAN NEST: We'll do that, Your Honor. And, as I understand, it will be Thursday at 5:00.

THE COURT: Right.

MR. VAN NEST: Right.

THE COURT: Okay. Let's go to the disgorgement. We're running out of time, but I -- all right. I'm going to summarize what I see is the issue here and give you both a chance to comment on it.

The Oracle expert Malackowski -- am I saying that right?

MS. HURST: Yes, Your Honor.

THE COURT: Malackowski. -- tries to identify the revenue stream that was associated with the entire Android platform, which is the ad revenue that came out of Android as opposed to Apple or some other source. And that turns out to be a large number, 47-something billion; right?

MS. HURST: Yes. The 28 is the subset of that, the ad revenue, Your Honor. 28.9.

THE COURT: 28.9. All right.

And then from that he brings that down to 8.8 billion by

showing us that in its dealings with Apple, Google itself placed a value of 30-something percent of the revenue from Apple, got shared back to Apple as compensation for the use of the Apple --

MR. VAN NEST: It's actually not Apple, Your Honor. Excuse me. It's a combination. It's an average.

THE COURT: Okay. I stand corrected. But, nevertheless, that's what he used it for.

So he says that 37 percent is a proxy for what the Android platform should receive. And so that goes down to 8.8 billion is attributable to the platform.

All right. To that, Google says, well, that's just way too much. And we're only talking here about a tiny fraction of the overall lines of code. And the platform includes the Dalvik machine and also includes many other APIs. It includes the implementing code that Google wrote or hired out to write, and many, many, many other things. And so it's unreasonable to ascribe the 8.8 billion just to those lines of code that were taken -- that were the copyrightable things that the Federal Circuit said were copyrighted.

Now, ordinarily that would be a great argument. But the statute says, under Section 504, that the -- I'll read it out loud. It's pretty short.

"The copyright owner is entitled to recover the actual damages suffered by him or her as a result of the

infringement" -- that's the lost profits part -- "and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages. In establishing the infringement profits, the copyright owners are required to present proof only of the infringer's gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work."

So this is one of those deals where the -- if you decide you're going to infringe, then some of the burden of proof that would ordinarily be on the plaintiff gets reversed around so that it's really the burden is on the infringer.

Well, but that's not the end of the story either because the Ninth Circuit, in the *Polar Bear* cases and other decisions, has said that, nevertheless, notwithstanding this, the plaintiff must establish a reasonable association -- that's the term that was used -- a reasonable association between the pool of money that is attributed to the infringement versus the -- to show some nexus between the infringement and that pool of money.

And the *Polar Bear* decision said that two of the three items in dispute there, the plaintiff had done a good job; and that on one of the three the plaintiff had not done a good job; and threw the third element of damages totally out the window.

Nevertheless, the test is this "reasonable association."

All right. So now we come to what is the revenue? And here we -- I think this is true. And this is something you-all ought to correct me on if I'm wrong, that the ad revenue -- Android is given away for free, but the way that Google makes money on it is by the ad revenue.

And we are able to trace and isolate all of the ad revenue that comes from Android. But is there any other -- to use a bad analogy perhaps, but at least an analogy, is that the smallest saleable unit? A concept in the patent law.

In other words, could we break it down even further? For example, is there ad revenue that comes from the Dalvik machine? No, there's not. It's not broken down like that.

Is there ad revenue from the individual APIs? I wish there were, but there's not. It's all just lumped together in the platform.

So an argument can be made that -- from the information that's been supplied, and I ask this very question, that given the internal records to Google itself an argument can be made that the 37 APIs in question are -- there has been a link shown -- I'm not saying that I would agree with this if I was on the jury. I'm just saying that an argument can be made that the 37 APIs contribute to the ad revenue. And then the burden shifts over to Google to -- to do an allocation to show that other elements of profit, things like the Dalvik machine, got

such and such a percentage; the APIs get a certain percent; the lines of code that was -- you know, you could figure out a way to do an apportionment.

So -- because this statute does place the burden on the copyright infringer at some point, once the -- once that reasonable association is made.

And then -- I'm almost done. Then I'm going to let you both comment.

And then the part that troubles me the most about -- well, let me back up.

If Google's approach had been, okay, we apportion such and such amount to the Dalvik machine, such and such amount to the 166 APIs, or however many they have in Android, such and such lines of code, I think you do have the lines of code analysis, okay, I could see some kind of an apportionment on that basis. And then you would run the numbers and see how much of that came out to be attributable to the infringement. That would be okay, I think. But what troubles me is the idea of using a noninfringing alternative analysis.

Now, I know that Dr. Kearl, who is the court-appointed expert -- but that doesn't mean I have to, under the law, go with what he says. He says under economic theory, the next best noninfringing alternative should be compared, and then the difference between the two, that belongs to the -- is attributable to the infringement. And that's what disgorgement

means.

Well, okay, maybe as a matter of economic principle. But that's not -- but this is talking about disgorgement. And I'm troubled by that approach. I give you several -- I gave you one example the other day. I'll give you another example.

I suspect that the -- that following that noninfringing alternative line of analysis drives you inevitably and inexorably toward a license, hypothetical license analysis such that the plaintiff always winds up getting only what the license fee should have been, because that's the -- that's the best noninfringing alternative is just go buy a license.

And there was a commercial license available here, at least as I understand it. They had been negotiating for it and couldn't agree on it. But it was a matter of price. So there was a price at which it could have been done. So whatever that price was would be the best noninfringing alternative in most cases.

But is that what Congress had in mind? Now I'm backing up to a -- I'm backing up to a big question. Is that what Congress had in mind when it said disgorgement?

So I sent out a request for you-all to brief this, and you did. And I read almost every single decision that was cited. And Google did a good job because some of that language does seem to suggest that you look at noninfringing alternatives. But when you actually read the decisions, they don't say that.

I'll give you one example.

The one where the architect -- none of these are Ninth Circuit anyway. But the one with the architect who designed a facade for Building Number 1, and had a copyright in it. And then they wound up using it for Building Number 2 without permission. He sued to say, "You used my facade. I get lots of money."

Well, the defendant brought in the owner, the building purchaser. And the purchaser said, look, that facade was meaningless to me. I would have bought the building anyway. I didn't care about the facade. I placed no value on it.

And so you can say, okay, was that a noninfringing alternative analysis? Well, only in this sense: It was only in the sense whether that facade was infringing or noninfringing or had -- you know, pictures of people standing on their heads and stacking greased B-Bs, it wouldn't have mattered to that owner. That owner didn't care what was on that facade. And within one sentence at trial at proof, one question, one answer, that went out the window. So that really is not the kind of noninfringing analysis that we're doing here or being proposed here.

What's being proposed here is an elaborate many, many witnesses' worth of testimony to run through an alternative that -- and let's put aside all the problems with the proof.

The fact is that the -- well, let me back up to the one

with the facade. So in that case the jury could have said easily, on that record, the facade gets zero. Zero, I think, is what actually happened. Because it didn't make any difference at all to the owner.

All right. But maybe that's not true in our case. In our case it's more than zero. And there's some value that ought to be placed -- some of that 8.8 million ought to be apportioned to these lines of code that are in question.

And I don't think it's so easy to say -- or maybe we -- maybe the law should not allow and, in fact, there is not a single decision cited where the law did allow an elaborate noninfringing alternative of the way that Google wants to present it here. Nothing comes close.

I read every decision you have. In fact, the one that came the closest was a dictum that Ms. Hurst cited, that Judge Gerwal decision, which in a dictum had two sentences which in theory would indicate that a noninfringing alternative could be considered. That was a Second Circuit decision. But the facts of the case had nothing to do with anything.

So I want to make a very -- this is my understanding of the law: In the entirety of the United States, from the inception of the Constitution to now, no decision has ever proved so elaborate a theory of noninfringing alternative as Google wants to present in this case. Not even close. Under Section 504. Or the predecessor before 1976. I think it was

just case law then, but I don't know.

Anyway, so I'm not yet to the point where I'm ready to say that we're not going to allow this, but I'm very close to saying to Google, you will not be allowed to use your noninfringing analysis on disgorgement. However, however, on lost profits it's the reverse. And there you might actually be able to use it because the burden is not on you under that one. It's on Ms. Hurst. So in an odd way she's bringing this into the case. So it's not -- you know, you see what I'm saying.

MR. VAN NEST: I do.

THE COURT: For disgorgement purposes, maybe you're out of luck. But for lost profits purposes, Ms. Hurst is the one who is putting it in play.

There, then, I have to say, all right, is it so counterfactual, so contrary to the record in the case that it would be a manifest injustice to let Google pretend to the jury that they would have done this when, in fact, looking at the records it's clear they would not have?

I'm not ready to say that yet because I want to see what else Google can present on it. But I have now given you a overview of my thinking. And none of this is gelled yet, but you can kind of tell I've thought a lot about it.

And I'm going to give you now -- each side, I'm going to give you an opportunity to say whatever you want.

So, Google, you get to go first.

MR. VAN NEST: Ms. Anderson is going to address this concept you've just been talking about, Your Honor, on the noninfringing alternatives.

THE COURT: Great.

MS. ANDERSON: Great, Your Honor.

THE COURT: All right.

MS. ANDERSON: And specifically, Your Honor, I'm going to be addressing the issue as it's been teed up in Motion In Limine Number 4 by Oracle against Dr. Leonard's opinions.

I think it's important to back up with respect to the perspective on the law Your Honor has expressed. That -- you've read carefully the cases that we submitted.

Oracle's motion is premised on the notion that it is impermissible to use noninfringing alternatives in the disgorgement apportionment analysis.

THE COURT: But I am very close to agreeing with that.

MS. ANDERSON: And I want to unpackage that for Your Honor.

THE COURT: You didn't cite to a single decision in the history of the universe that has allowed such an elaborate theory as you have.

MS. ANDERSON: Well, Your Honor, I believe that the counterfactual scenarios which we've submitted, and, Your Honor, the language that's used in terms of terminology and calling this noninfringing alternative, is really just one

specific way of talking about counterfactuals in general.

Malackowski uses the counterfactual as the basis of his opinions. His counterfactual is that without the APIs there would have been no Android. So the use of counterfactuals is firmly used by both experts in this case.

When we're talking about the opinions that Leonard has offered here and the law that Oracle is talking about, the cases that Oracle cites, none of them stand for the proposition that a party is not allowed to use noninfringing alternatives. None of them so hold.

What the Ninth Circuit has held and is a consistent doctrine throughout the country is that courts are required to -- and, therefore, parties present evidence -- to yield a reasonable and just apportionment. And the courts do not require mathematical precision. Nor do the courts place limits -- some arbitrary limit in terms of how you present the reasonable and just apportionment. They don't put limits on complexity.

And I'm going to address Your Honor's points about complexity, but even taking as the assumption that Your Honor has posed, that these are complex counterfactuals, no court imposes a limit or bar to reasonable and just apportionment merely because there is some complexity involved. In fact, the case law acknowledges this.

THE COURT: Well, I'm not sure that's right. Rule 403

is used all the time to -- but I'm not just worried about Rule 403. Let me give you -- I'm worried about, additionally, the legal concept of whether disgorgement -- the apportionment for disgorgement can be measured in the way you want.

Let me give you this example. And I gave it the other day, and I still am very troubled by it.

Let's say you have a guidebook to San Francisco. To make it easy, let's say there's a hundred pages in there. And every page has got a photograph of some landmark in San Francisco.

So the publisher has used one without permission from some photographer, and should have gotten permission, didn't get permission. And let's say there's a lawsuit.

So the publisher comes in and says, look, that picture of whatever, Coit Tower, whatever, we could have gone out and for $10 we could have made our own picture. We didn't care what picture we used. We could have made our own picture.

And so let's say the plaintiff, if you just divide it up by 100 and apportion the -- it would have been a thousand dollars went to that plaintiff. Instead, now, because of the possibility of a noninfringing alternative of just making your own picture, it's reduced to $10.

To me that's not what Congress had in mind. The infringer goes out there, makes a lot of money using the work of somebody else, and some -- 1 percent of that work, that profit, belongs to the victim. And it's a little too late in the day to come

back in and say, well, we could have done it in a legal way. And if we had done it in a legal way, it would have just been $10.

So that -- see, it's a question of what did Congress have in mind.

MS. ANDERSON: Yes, Your Honor.

THE COURT: And I don't know. You keep saying "no case has ever." Well, this is the case that's going to decide it. So let's talk about what Congress meant.

MS. ANDERSON: Let's do that.

THE COURT: All right.

MS. ANDERSON: And we have a Supreme Court case that we can talk about. Your Honor is aware of it. The *Sheldon* case. The *Sheldon* case which is cited in the supplemental briefing --

THE COURT: Well, remind me what happened there.

MS. ANDERSON: Sure. Just one moment, Your Honor.

That's the *Sheldon vs. MGM* case. And I'm going to pull the cite up for Your Honor. Give me a moment.

But it's a Supreme Court decision that actually ultimately recognized that it would be unjust for a plaintiff to profit from what it didn't contribute. And it was the foundation for what ultimately became codified in 504(b) and the notion of the kind of infringer's profits that were available under the copyright statute.

Just pulling up my copy of the case right now, Your Honor. Out of order. Just one moment.

THE COURT: Maybe my law clerk can go get that decision.

MS. ANDERSON: Sorry, Your Honor. I'll pull it up here.

THE COURT: What is the cite to it?

MS. ANDERSON: Sure. It's 309 U.S., and specifically at pages 408 to 409.

THE COURT: So that sounds like a 1940 decision.

MS. ANDERSON: So in the Supreme Court case the Court explained -- and this, again, is at pages 408 to 409 -- that:

"Equity is concerned with making a fair apportionment so that neither party will have what justly belongs to the other."

There is a concern here. And the Court said, quote:

"Confronted with the manifest injustice of giving the petitioners all the profits made by a motion picture, the Court, in making an apportionment, was entitled to avail itself of the experience of the best qualified to form a judgment in the field of inquiry."

And the concern the Court is talking about in *Sheldon* was the idea that you don't want to do more than what is a disgorgement remedy here. This is not a punitive statute. It is not intended to be punitive.

For example, Oracle cited in some of its supplemental pleadings the notion that in designed patents there's no apportionment permitted under the statutory scheme there.

THE COURT: I was pretty close. 1940. That's what I said; right?

MS. ANDERSON: Yeah. You nailed it. You nailed it.

THE COURT: That was a good guess. That was totally a guess.

What's the page again?

MS. ANDERSON: 408 to 409.

THE COURT: Oh, 408, okay. All right. Looks like -- see what the actual date is now that I -- about the only thing I'll get right in this case.

Okay. 1940, March 25.

All right. So the page that you are referring to --

MS. ANDERSON: 408 to 409, Your Honor.

And so Your Honor can know that at the very beginning of the opinion the Court explains that:

"The questions presented are whether, in computing an award for profits against an infringer of a copyright, there may be an apportionment so as to give to the owner of the copyright only that part of the profits found to be attributable to the use of the copyrighted material, as distinguished from what the infringer himself has supplied, and if so, whether the evidence affords a proper

basis for the apportionment to create in this case."

THE COURT: Well, all right. But does this get down to whether or not it decided that noninfringing alternative analysis was okay?

MS. ANDERSON: No. But the reason that I raised this issue, Your Honor, is the hypothetical scenario that you were just talking about there --

THE COURT: Yeah.

MS. ANDERSON: -- it is fair and it is properly contemplated within the copyright statute that if there is a counterfactual scenario that allows you to come up with a reasonable and just apportionment or attribution of profits to the infringing material, the Court is required under Ninth Circuit law and the statute to do it.

And under your scenario --

THE COURT: That was a fast slide over thin ice. I don't think you are required to engage in extended logic, piling assumption on assumption, and then say what might have happened in an alternative universe. I think at some point you have to say no. There's a much easier way to get at this. You add up the lines of code, you take a percentage. That's a rough cut. Maybe you look and see how many times the API is called up. That's another rough cut. And then you mix it all together, and the jury comes up with a number. That is at least based upon the real-world numbers.

But now you want to -- see, and every time it's going to drive you down to what the cost of a license would have been, because that is the best noninfringing alternative, is just a license. And I don't think that's what Congress had in mind by way of apportionment.

MS. ANDERSON: One thing, too, I'll note for Your Honor, is that the hypothetical that you raised as an initial matter creates a problem for plaintiff on the causal nexus side; right?

So Ninth Circuit law first places the burden on an indirect profit scenario. Although, maybe your scenario --

THE COURT: No, that's not true at all.

That one photograph is in the book. It -- the book is sold. It's a smallest saleable unit. How else could they ever do it?

No. Clearly, the example I gave, that would satisfy the *Polar Bear* test.

So then the burden would fall on the publisher to say: Okay. That was just one in a hundred. Okay here's a thousand dollars. Let's all go home.

MS. ANDERSON: Yes, Your Honor, but --

THE COURT: That's the way that would work.

MS. ANDERSON: But as applied to a case like ours, causal nexus is a big problem in that scenario.

THE COURT: Yeah, but the smallest saleable unit --

MS. ANDERSON: What --

THE COURT: How are they going to break it down any further?

MS. ANDERSON: Right. But what I'm talking about is in terms of applying your analogy to situations as we have here. You have causal nexus issues when there are reasonable counterfactual scenarios that the defendant could have taken that really pinpoint why the infringing part is not valuable in terms of profits. And you see in cases --

THE COURT: Back at the time you thought it was valuable.

MS. ANDERSON: Well, actually --

THE COURT: Back at the time Google couldn't wait to get those APIs in there. And they even had people write their own implementations.

I don't know. I think that there's definitely evidence from which a jury could conclude that Google wanted to have those 37 APIs in order to leverage and take advantage of and capitalize on that Java app community. I think that's what was going on. I think that even the Court of Appeals said that.

So I don't know. I think you're trying to downplay it too much now.

MS. ANDERSON: Well, again, the portion of the argument that is on the motion in limine concerning Mr.-- Dr. Malackowski is something Mr. Van Nest is addressing. But

in terms of the actual case law, you see cases that talk about counterfactuals, and then do reject claims for profits caused by things where you see an alternative that could have been taken. We cited the *Bouchat* case from the Fourth Circuit in our supplemental pleading. And there are others cases we have cited --

THE COURT: I read that one. Remind me what the fact pattern was. I did read that.

MS. ANDERSON: Sure. That was the one where there was a claim for profits caused by the defendant's use of a particular logo. And the Court noted they could have used a different logo in their advertisement.

So you see a lot of these cases talking about the idea that if you have a scenario where the defendant could have simply taken an alternative route, it allows you to pinpoint profits attributable. Then you have a scenario where that counterfactual is valuable in determining what is reasonable and just.

And we cited for Your Honor, in our pleadings, the *Data General* case from the First Circuit from 1994. That Court recognized that in submitting evidence on proper apportionment, the defendant can attempt to show that consumers would have purchased its products even without the infringing element.

It doesn't exclude the idea --

THE COURT: Well, remind me what the infringing

element was there.

MS. ANDERSON: Sure. Let me pull that up for Your Honor.

THE COURT: Can you go get my -- here. Wait a minute. I may actually have them all here.

MS. ANDERSON: It's the First Circuit, 36 F.3d 1147. That's the case involving a copyright for the manufacturer's diagnostic software.

THE COURT: Can you bring those books that I had?

But, see, there -- this is the First Circuit; right? The First Circuit there said that they could -- that the defendant could put on some expert to say, look, consumers would have bought this product anyway because the logo or the diagnostic software, whatever, was not the important part of it. They would have bought it anyway.

But here's the deal: We know that Android, as it was sold, nobody would have bought it without those 37 APIs. It couldn't have worked.

MS. ANDERSON: We don't know that at all, Your Honor, actually.

THE COURT: Come on. It wouldn't work. It wouldn't work. You couldn't have made any -- those apps -- all of those apps -- most of those apps got used on a lot of -- you don't have anyone who's willing to come in here and say that Android would have worked just as good?

MS. ANDERSON: Well --

THE COURT: And I believe it's your burden to do that. It's not your burden not to do that.

MS. ANDERSON: I think it's important to keep clear on the terminology. Because in Oracle's papers they repeatedly argue that if you took out the Java API labels that, quote, Android wouldn't work. And that is the basis why they refused to do any counterfactual other than the one that Mr. Malackowski uses.

The problem is that that is a specious argument when it comes to software. Frankly, Your Honor, if that argument carries the day, it means that there is no apportionment if the accused product is a body of software code.

If you take out a chunk of code out of a body of software code, it's going to cause errors and not work. That is true for any part of that body of code. And we have admissions from their own witnesses to that effect. That is a specious argument. Taking a piece of code out of a body of code will cause it to fail, regardless of whether it's the APIs or something else.

THE COURT: Well, but that's the -- so then do we get to go down the path of, okay, what would the alternative have been?

MS. ANDERSON: Counterfactuals, yes. They are embraced by the cases we've cited. *Data General*, *Bucklew*,

Bouchat, *Walker*, *Complex*, *Semerdjian*, *Bonner*, *OnDavis*, all cited to Your Honor in the cases. Even the cases that Oracle relies on talks about them.

So, you know, ***Frank Music*** -- first of all, is a Ninth Circuit case -- in no way stands for the proposition that you're forbidden from using a noninfringing alternative. That is a form of counterfactual.

And the ***Brocade*** case, to which they cite, doesn't stand for that proposition either.

Here we have a situation where --

THE COURT: I agree with you on both of those decisions. I agree with you on both of those decisions. But neither do they stand for the proposition that we do look at noninfringing alternatives.

To me, Congress wanted -- it was a much simpler thing. Congress wanted you to look at what money was made off of the infringing thing. And whenever there was more involved, like one picture out of a hundred, you apportioned in some equitable way. Now it's for the jury to do.

Okay. That's so easy a concept. And what you want to do is say: Oh, no. We are going to be allowed to show it was a nothing. It was a zero consideration. We're going to do this noninfringing alternative.

And then so you defeat what Congress had in mind. Congress wanted them to get something.

MS. ANDERSON: No, Your Honor. I respectfully disagree.

THE COURT: And not just a few thousand dollars. In this case, it was a lot more than that.

MS. HURST: I respectfully disagree, Your Honor. The case law allows that to happen if there is a failure, number one, of the plaintiff to show causal nexus. And causal nexus is a lot more than just, well, it happened to be used in the product.

THE COURT: Let the jury decide that. Maybe you're right. You lawyers are so good, you will get up there and you will do a great job of explaining. But you want me to give you a home run upfront and say they haven't met the *Polar Bear* test. I'm not sure I can -- I should do that. I want to wait and see how the evidence comes in.

MR. VAN NEST: I do want to address that, Your Honor --

MS. ANDERSON: Yes.

MR. VAN NEST: -- when the time comes.

THE COURT: Address it to the jury.

MR. VAN NEST: I would like to address it to Your Honor.

THE COURT: I don't like to have to carry everybody's water for them. The jury -- look. I asked Oracle to give me their proof. On the cold record it looked like -- I'm not

going to say it was adequate. But I can't say it's inadequate either. And it's your burden on a motion in limine. It's not their burden.

MR. VAN NEST: That's right.

THE COURT: So why not just let the jury hear all of this?

MR. VAN NEST: Well, here's --

THE COURT: And then let them decide whether or not the threshold test has been met.

MR. VAN NEST: Let me clarify what we're asking on our Motion in Limine 6, if this is an appropriate time to address it, Your Honor. I don't want to interrupt your chain of thought.

THE COURT: No, no.

MR. VAN NEST: Here's the deal: There are several forms of revenue that they're talking about, and we're challenging one. All right. So let me make clear what our motion is addressed to and why I think it's absolutely clear under the law that it's the right thing to do.

There's ad revenue. That's this $30 million -- $30 billion number we talked about. There's also revenue when Google sells a phone. Google has a line of phones called Nexus. We're not challenging Malackowski's reliance on that. There's also revenue from the sale of apps, applications that we're not challenging his causal nexus for that; although we

will in front of the jury. There's also sale when you purchase some content, books, music and so on from the Google store. That's what adds up to his 8.8 billion.

All of those -- the one revenue stream we're attacking is ads, and here's why: Because *Polar Bear* and *Mackie* require that you establish a causal nexus between the use of the copyrighted work and the profits, the revenues you're talking about.

The statute starts by saying on disgorgement that the profits that are attributable to the infringement, attributable to the infringement, are what the copyright holder is entitled to.

And as Your Honor noted in your order, *Polar Bear* and *Mackie* require this two-step framework where the copyright owner must first show a causal nexus between the infringement and the revenue. And then once that's established, if it is, then there's an apportionment. And the burden, as you noted, is on -- on Google to do that.

But it's crystal clear that in *Mackie* and *Polar Bear* what they're looking at is what impact, what causation can you find between the copyrighted work you're using -- here that's the SSO and the declaring -- the method labels, the declarations, okay, and the ad revenues. That's what they've got to show upfront.

And it's up to the Court -- and this is what *Mackie* says

-- to conduct a threshold inquiry into whether there's a legally sufficient causal link.

Now, Malackowski, notwithstanding that big fat exhibit, Malackowski doesn't do that. Malackowski admits that the ad revenues are based on a completely separate technology, the Google Search Engine, and a separate completely separate technology, the Google ad system. Those are -- he admits that those are preexisting systems that work on all platforms in the same way. Desktops. Laptops. They're out there. They are the thing that generates the ad revenues, whether you search on Google or whether you access somebody's website.

And he describes them in his deposition as, quote, an entirely distinct area of technology. An entirely distinct area of technology.

And he testified, Your Honor, that even though these things are independent, entirely distinct areas of technology, he didn't take them into account. He didn't consider them in establishing causal nexus. He didn't think he had to.

THE COURT: What was it? Search engine and what else?

MR. VAN NEST: There's two things. There's a Google search engine, which is the basis for Google's success in the beginning. And Google has a separate ad delivery system, the Google Ad Serving system, which works separately and with, sometimes, Google Search. Those two -- those two systems are independent. They work on other platforms. They weren't

developed for Android. They've been in existence long before Android. And he admits that they are the -- they are a completely separate area of technology. And he says, I don't even have to have them in establishing a causal nexus. I don't even have to consider them.

THE COURT: Did Dr. Kearl consider them?

MR. VAN NEST: Dr. Kearl -- I'm not sure what -- I'm not sure about Dr. Kearl.

THE COURT: All right.

MR. VAN NEST: But -- but I know that Mr. Malackowski did not.

So, for example, here's what's in that exhibit. Here's what's in that exhibit they gave you. Their point is, okay, you use the SSO -- right? -- to get faster programming. It got you to the market faster. It got you access to Java developers. They're used a lot by the various apps.

All that gets you is a very good phone operating system. It doesn't cause somebody to choose Google Search.

By the way, you don't have to search on Google when you're on Android. You can search on Yahoo! or Bing. You can download any search engine you want. The SSO has nothing to do with that. It also doesn't impact an advertiser. An advertiser can choose an ad-sharing system that he or she wants. It doesn't affect the user who's got to click on the ad.

None of this stuff has anything to do with the revenue generated through ads. And you can tell from what I'm saying, I'm acknowledging that, okay, I'm not sure there's a causal nexus to selling phones, but at least there you're selling a phone that has the software in it and the SSO and so on. Okay. I get that. And with apps, I get that. Okay. We'll challenge that with the jury. I don't think they can get it there either, but we'll challenge that with the jury.

But with the ads, there is nothing. And what they're saying to Your Honor is the following. This is the analogy and it's dead on. They're saying: Hey, to build a symphony hall, you need an engineering plan for the support steel. I'm going to give them the full benefit of their argument.

If that engineering plan is copyrighted and you use it without permission, by God, you have contributed to the building of that symphony hall. And then I get money from tickets that are sold when the Bolshoi comes to that hall, or when the symphony comes to that hall, or when the New York Philharmonic comes to that hall. That's ludicrous. There's no causal nexus between that.

If you're talking about selling the building, okay. That's what these cases talk. If you're talking about selling the phone, okay. But just because you've got a copyright on an engineering plan that builds a great symphony hall, you don't get the revenues when someone chooses to go to the Bolshoi or

chooses to go to the Philharmonic. Your Honor, that's what Google's search engine is. That's what Google's ad service is. It's a completely separate activity that happens to be performed on the phone. But it isn't caused in any reasonable way, shape or otherwise by -- by the use of the declaring code or the SSO. It really --

THE COURT: Why wouldn't it be? Well, let me ask a different question. Before Android --

MR. VAN NEST: Right.

THE COURT: -- Google was already making ad revenue money. True?

MR. VAN NEST: True.

THE COURT: All right. What was that ballpark number? Do we know?

MR. VAN NEST: I don't know.

THE COURT: All right.

MR. VAN NEST: You'd have to --

THE COURT: I'll just make up a number. Let's say that it was $10 million before Android. This is hypothetical. All right. So then Android comes along and it goes immediately to $20 million.

MR. VAN NEST: Okay. Let's assume that.

THE COURT: All right. Assume that. So then one logical thing to say would be that Android contributed another 10 million in ad revenue, and then in part some of that was

attributable to the lines of code.

MR. VAN NEST: That's where the line breaks because what the cases say is -- they're arguing that they get this 8 billion because Android contributes to ad revenues. Okay. I'm not even sure that's true. But they've got to show that the SSO somehow contribute -- is causal nexus. There's got to be -- that's what *Mackie*, where they were looking at the pictures that were in the brochure, that's what your -- your photographer hypothetical is. It's not that Android caused it.

Because, as we all know, there's a million things in Android where you have to separate activity being performed on top of Android with a completely separate technology like Google Search or Google ad, they've got to show some causal nexus.

Just like in *Polar Bear*, they showed a Nexus between the film footage of guys kayaking in Timex logos and somebody at a trade show buying a Timex watch. They showed the footage had impact. Because the user saw the footage, and the Court said that's good enough. Right?

But in terms of a general benefit to Timex, no. The Court said no, you don't meet the causal nexus test.

And so what I'm saying is -- and by the way, it's not going to be a small number. If -- if the ruling is ad revenue no but the other revenue streams okay -- because there's at least arguably a theory for getting those, a theory for getting

those -- that's still a couple-of-billion-dollar event. Maybe a billion. It's not 8 billion, but it's probably a billion. Malackowski would have to tell us the number.

But there, Your Honor, you can see the difference between, all right, I've got code in a phone. I'm selling the phone. Okay. I'll argue that with the jury.

But what they're saying, okay, you -- you build a phone and the phone uses the SSO, to then say any activity, any activity, including one that is generated with a thousand decisions by users, by OEMs, by people who choose to use or not use Google Search, who have no idea what these SSO are and don't care, and OEMs that don't care, and advertisers that don't know or care, I mean, the decisions that go into ad revenue have nothing to do, Your Honor, with the SSO. They don't.

THE COURT: That's what you say, but wait a minute. First, you have said several times that the foundational link has to be established by Malackowski. That is wrong.

What is required is that the trial record be sufficient from which the jury could draw the conclusion that there is a -- I will quote exactly -- "reasonable association between the gross revenue that's sought and the infringement."

So it could be those emails. It could be all kinds of things that come into evidence that were summarized by Oracle in its -- that Malackowski does not have to testify. He can

just assume. Otherwise, assume that that's going to be proven up in some other way. That's why I asked the question, was to see, how does Oracle plan to --

MR. VAN NEST: I accept that. I accept that.

THE COURT: All right. So couldn't a reasonable jury, from the way in which your own client described it internally, draw the conclusion that those APIs were important to the Android platform and, therefore, they contributed in some way, some reasonable way, to the ad revenue that's in play now?

MR. VAN NEST: No, no. What I'm saying is -- look, it's not a reasonable association, Your Honor. That's not the test.

THE COURT: I have it right here. I'll show it to you. I'll read to you from *Polar Bear*.

MR. VAN NEST: Well, what --

THE COURT: It's at page 715, near the bottom.

"It, nevertheless, remains the duty of the copyright plaintiff to establish a causal connection between the infringement and the gross revenue reasonably associated with the infringement."

MR. VAN NEST: Okay.

THE COURT: So causal connection.

MR. VAN NEST: That's it.

THE COURT: All right.

MR. VAN NEST: That's it. That's where I am, causal

connection. They want to have something a lot more of a gestalt, you know, relationship between these.

But if you look at *Mackie* and you look at *Polar Bear*, *Mackie* says you've got to establish a causal link between the symphony's infringing use of the tango -- that was one of these dance-step pictures -- and any revenues generated through the inclusion of the collage in direct mail.

They're looking at -- and so is *Polar Bear*. *Polar Bear* uses causal nexus, causal relationship. And what I'm saying is that -- what I'm saying is that in this situation where you've got an entirely separate technology, the most they can show is just like the guy that had the engineering plan for the steel. You contributed to a beautiful symphony hall. Okay. I get that. And if we're talking about the value of the symphony hall or selling it, okay.

They want profits that Google earned through Google Search and Google Ad, which are freestanding, preexisting, world famous, separate, distinct technologies that -- that are the things that give rise to the ad revenue that --

THE COURT: Of course they contribute too, but Android certainly contributes --

MR. VAN NEST: No.

THE COURT: -- to ad revenue.

MR. VAN NEST: There is ad revenue earned when people use Android phones. But, Your Honor, that's not the test.

That's what I'm getting at. The test is, did the use of the copyrighted work -- and here we're talking about lines of code, right, that are declaring labels, method declarations in SSO, did that use cause ad revenue? It simply did not.

Why? Because there's too attenuated a relationship between that code, which is a minor, minor part. We're talking about less than 1 percent of Android and all the billions of dollars of revenue that were earned not because of that code but because of the Google Search and the Google Ad system and all of the decisions that various people make along the way.

The point is, it's a little bit like saying, you can't let juries speculate. The cases also say, *Mackie* and *Polar Bear*, you've got to have nonspeculative evidence that links, in a causation way, the infringing work and the revenue we're talking about.

And what I'm saying is, not as to sale of the phones, not as to applications, and not as to downloaded content. Okay. There I think you would be correct in saying I can argue that to the jury, and I must. And we haven't challenged that in our motion.

What we're challenging is the far-fetched notion, I think, which they didn't provide any evidence to support beyond saying these things contribute to a good phone. That's all they've said. It contributes to a good phone that was in the market that might not have been there. All right.

But that doesn't get you to where *Polar Bear* and *Mackie* need to get you, which is, did they cause -- did our use of that SSO and the method declarations cause ad revenues? They certainly did not. And they haven't shown any evidence. In all these other cases, Your Honor, there is a link where you can say somebody looking at the picture would certainly be excited by Timex. Somebody looking at the tango, the tango steps, the Court said absolutely not. You know, that doesn't make it.

Most of these cases that talk about indirect revenue -- and we cited them at pages 13 to 15 -- particularly in the software area, say the mere fact that you've got some software in your device that works, that -- and that helps your device work, that doesn't give you the causal nexus you need.

I cited *Complex Systems, Inc.* I realize it's not Court of Appeal. It's a Southern District of New York case. But that was very similar to this, where they're talking about some indirect profits made on top of a software platform. And what was in the software platform was some infringing code. And there the Court, on *Daubert* said, no, you don't get to get that far.

If we're talking about selling the software, okay. There's a nexus to that. But -- and that's all there was in *Brocade*, too, for that matter. But where you're talking about some completely independent activity that happens on top of the

platform, where the platform is, in a sense, in the back room doing some of the work, okay, that is not the causal nexus you need to go out and, in this case, try to grab $8 billion worth of revenue.

THE COURT: I'm sorry. We're going to take a break. And I need -- before we do that, when we come back, I want to hear from Oracle. But I want to ask Dr. Kearl whether he's going to be here tomorrow as well.

MR. COOPER: Yes.

THE COURT: All right. Because I want to make sure that we give him a full opportunity to weigh in on anything that -- and, in fact, when we come back, if you wish to address any of the things that we're talking about here, I would like to hear your views.

DR. KEARLE: Okay.

THE COURT: So we're going to take a 15-minute break. Probably we'll go another hour, hour and 15 minutes after that. I'm not sure. But we'll see -- we'll see how everyone holds up. Okay. Fifteen minutes.

MS. HURST: Thank you, Your Honor.

MS. ANDERSON: Thank you, Your Honor.

(Recess taken from 11:20 a.m. to 11:38 a.m.)

THE COURT: Be seated. Come back to order. Have a seat, please.

Before we go to -- Mr. Van Nest said something which I

must have misunderstood. I want to make sure I got this right.

He said that there was the search engine and the ad delivery system, and that Malackowski failed to apportion any of the ad revenue to those systems.

I don't think that's right.

MR. VAN NEST: I didn't say that. And it's not right. I didn't say that. What I said was --

THE COURT: That's what I got out of it, so --

MR. VAN NEST: Okay. What I said, Your Honor, was that in looking at causation, in looking at causal nexus between the copyrighted work and the revenue, he didn't take into account the ad system or Google Search. Right?

In other words, my point is, since Google earns that money on any platform -- a desktop, a laptop, an Apple phone, an iPhone -- it's independent of the SSO. And my point is, if it's independent of the SSO, there's no causal nexus; right?

These search technologies work the same whether you're using an iPhone, a desktop, a laptop, an Android. It doesn't matter. They're the thing that generates the revenue, not Android.

And what I said was that Mr. Malackowski, when we asked him, Did you evaluate causal nexus knowing that there were these independent, separate technologies out there actually generating the revenue? he said, No, and I didn't have to.

That's my point.

He says he apportions it by assigning two-thirds of it, two-thirds of the total ad revenue to Google, in effect, and one-third to the Android platform. And it's that one-third that allows him to come up with the bill, roughly a billion.

But my point is different. I didn't say that he didn't apportion. I said he didn't take it into account in his causation analysis. But you're right about what you thought.

THE COURT: All right. Well, there is a different procedural point that bothers me, that maybe both of you are guilty of.

In Malackowski's opening, he did not use 8.8 billion. He used 28 billion. And then he got criticized by Leonard and Kearl, so he did a reply -- reply report, where he reduced it down to 8.8 billion.

MR. VAN NEST: That's right.

THE COURT: Now, I'm pretty tough on reply reports. And sometimes I might not forgive that, and just throw it out. The opening should have that in there. I'm not making that decision now. But it's a completely different procedural point I didn't realize until I took a break and my law clerk explained it to me.

But you have the same problem with Mr. Leonard. He went out and tried to fix up his report with a reply report. We haven't gotten to that problem yet.

MR. VAN NEST: They're different. That's a very

different problem.

THE COURT: Maybe they are. Maybe they aren't.

MR. VAN NEST: Oh, yeah, they are.

THE COURT: I get fed up with the lawyers and the experts who get so greedy, and then they come in and try to overreach, and then they get caught on it and try to fix it up on a reply report after the deposition has occurred.

Did that happen after the deposition, or not? Did you know about the 8.8 when you took his deposition?

MR. VAN NEST: Yes.

THE COURT: So you did know about that?

MR. VAN NEST: We did.

THE COURT: All right. Then maybe -- then maybe that mitigates any surprise in damage or not.

Has your expert Leonard -- is he -- who is your responding expert?

MR. VAN NEST: Dr. Leonard.

THE COURT: Has he been able to address the 8.8?

MR. VAN NEST: He does.

THE COURT: All right. Okay. I want to hear from -- let's hear from --

MR. VAN NEST: Excuse me, Your Honor. I may have spoken in error.

MS. EGAN: Your Honor, we agreed to --

THE COURT: Come up here. Say your name.

MS. EGAN: Elizabeth Egan for Google.

THE COURT: All right.

MS. EGAN: We agreed to a schedule for submitting the expert reports. And just in all fairness, our -- the opening report for plaintiff's expert had to address the things that they had the burden on. Then Dr. Leonard submitted his response to that report, which had to include the elements that Google had the burden, which included apportionment.

Mr. Malackowski replied to that report. In that schedule there wasn't a provision for Dr. Leonard to then submit a reply to Mr. Malackowski's reply. So I just wanted to be clear on that.

THE COURT: So has -- so did Leonard address the 8.8 number or not?

MS. EGAN: In his deposition, yes. But he -- as part of that back and forth, given the complexity of the burden shifting in the statute, there wasn't a provision for Dr. Leonard to submit a reply report to Mr. Malackowski's reply.

And the way in which this is different from the issue with Dr. Leonard's reply report, again, Dr. Leonard submitted a reply report along with the court-ordered schedule with respect to Dr. Kearl.

THE COURT: Well, look, it's too complicated for me to get to the bottom of it. So by two days from now, same

schedule, here's another brief that you-all can do. But I don't feel sorry for you because look at all the lawyers in the room. Look, four, five, six, seven over there. The only one I feel sorry for is right over there, Dr. Kearl's lawyer. And he does not have to submit any reply report.

So, Mr. Cooper, you're off the hook on that one.

MR. COOPER: Thank you.

THE COURT: All right. What you need to address in this supplemental, but not right now -- I want you to know, normally -- and even normally is normally, not always.

Normally, on these -- you don't get to fix it up in the reply report. You can't overreach in the opening and then get caught and then fix it in the reply.

And, at a minimum, you don't get to say anything that's in the reply the first time you're there. You've got to say it all on the stand on direct. You don't get to go to the reply. Then we hear the rest of the case. And then maybe if there's a rebuttal, you get to do the reply.

That's the way I try to punish those people who misuse the reply report, because you don't get to say it -- I don't always do that, but that's the normal rule.

However, in terms of that *Daubert*, should I be limited -- not limited. In fairness, should I just look at what he did in the opening report and not let him get away with fixing it up in the reply report once he gets caught? I don't like that. I

really don't like the idea that you can -- you can play those kind of games.

So that's what's bothering me. And you-all can give me your briefs and -- so while I was kind of leaning Oracle's way on this, now that I see what happened on the reply report, I'm very upset about that. And I -- and I don't like it.

On that one ground alone, maybe he ought to be completely excluded for overreaching with not just $1 billion, tens of billions of dollars.

I'm not making a decision now, but I want you to know you ought to do a good job on your briefs. Two days, 5 o'clock.

And the same thing ought to apply to Dr. Leonard, who tried to fix his up after the fact too. So you can explain to me if those are the same or different.

Okay. I'm going to forget what I just said for the moment because I'm going to wait on the briefs. So don't even address that now.

Let's go to the points that we were going over before the break.

MS. HURST: Your Honor, the Court asked what was the Congressional intent in 504(b). The answer in *Polar Bear*, at page 708 --

THE COURT: Is that the one that quotes the 1960 report?

MS. HURST: It is, Your Honor.

THE COURT: I read that. I actually went back and got that. But that's not the legislative --

MS. HURST: It is, Your Honor.

THE COURT: It's not the legislative intent.

MS. HURST: It is, Your Honor.

THE COURT: Okay.

MS. HURST: It took more than 20 years to develop the legislative history for the 1976 Copyright Act.

THE COURT: All right. Let's see. I read it. I went back and actually looked at the original. So I -- let's go ahead and hear your point on this.

MS. HURST: So it is the legislative history, Your Honor, because there was a very long -- there were numerous reports by the committees, by the registrar of copyrights. House Study Number 22 and Number 23 were about damages. It was years later before they finally got to the legislative compromise and enacted the 1976 act.

So the Court got it right in *Polar Bear*, even though it looks funny that it's older.

THE COURT: What page is that on again?

MS. HURST: It's at 708, Your Honor.

THE COURT: Okay. Let's make your point.

MS. HURST: And so the Court said:

"...to take away incentives for would-be infringers and to prevent the infringer from unfairly benefiting from

the wrongful act."

So two purposes: To prevent the retention of an unfair benefit, and to deter, deterrence, prevention of the retention of benefits.

THE COURT: So that is citing to the '76 House report.

MS. HURST: Yeah. Oh, you're right, Your Honor.

THE COURT: That's not the 1960 one.

MS. HURST: There is an old study, though, that supports this, Your Honor.

THE COURT: All right.

MS. HURST: So there's two purposes here. And the deterrence and prevention of the retention of a wrongful benefit. And the deterrence rationale is completely viciated by what Google proposes to do by apportioning with noninfringing alternatives.

Because, as the Court noted, it derives the value down to whatever a hypothetical license price might have been, it behooves the infringer to always take its chances on litigation.

THE COURT: I tend to agree with that point. That's what -- you said it better than I did. But that's the point I've been trying to make, is that you can always default back to, well, we could have gotten a license, you know. But that's no worse off than if you had gotten a license in the first place.

So that does bother me that -- it puts the infringer in the position of: Why not take our chances? We may not get caught. We might get away with it. Why pay all that money now?

So I tend to agree with that point.

MS. HURST: And, Your Honor, Congress has enacted a careful overall IP statutory scheme that distinguishes among different kinds of IP in this regard.

Disgorgement of profits is not available under the current version of the Patent Act. It is available under the current version of the Copyright Act and the Trademark Act.

And, Your Honor, there's a difference in how one goes about infringing --

THE COURT: Can I raise a question with you?

MS. HURST: Absolutely, Your Honor.

THE COURT: In one of your briefs you mentioned design patents. You didn't mention it now.

MS. HURST: Yes.

THE COURT: But the Supreme Court has just granted a review in a case that involves the disgorgement on design patents --

MS. HURST: Yes.

THE COURT: -- in the Apple-Samsung case.

So I know this is a different statute, but is there going to be anything in that decision that may impact us here?

MS. HURST: I don't think so, Your Honor, because it doesn't have the burden-shifting scheme and all the other stuff that's going on here.

THE COURT: You started off a moment ago saying it's this comprehensive scheme.

MS. HURST: True.

THE COURT: You left out the patent one. You were seeing what question I might ask.

MS. HURST: No --

THE COURT: Is there any value in waiting a year to see what happens?

MS. HURST: Your Honor, definitely not. I know Oracle has -- you know, this case has been pending since 2010. And I know they would like to get this case to the jury on May 9th, as the Court has scheduled.

And I did not deliberately omit that, Your Honor. Here's what I was going to say: When you take something from someone else's copyrighted work, you know you're taking it. You know you're copying from them. You may not have a specific intent to infringe -- although the evidence here would support that inference -- but you definitely know that you copied something.

Patents you can infringe all the time without having any idea they are out there. You do something yourself, and it turns out they're there --

THE COURT: I don't even buy that, though, because the

fair use is such an important part of it. Newspapers, for example, all the time quote word for word things. And it's all fair use, so they get away.

Then, on the order hand, they did not get away with it in the Gerald Ford case. So it's not that clear, always, that you know or you don't know. So I'm not sure -- I don't know if I agree with what you just said.

MS. HURST: All right, Your Honor.

Here's my point: There's an allocation of risk that is reflected in the statutory scheme. And in the Copyright Act, the Congress has placed the risk on the infringer.

The infringer knows they're copying something. They might decide they think it's fair use. They might decide they think it's not copyrightable. We certainly haven't seen any legal opinions to that effect in this case, but they are arguing it. Maybe that's what they thought. Maybe it wasn't.

In any event, Congress made a decision to allocate the risk here. And there is actually a very careful allocation of risk reflected in the burden-shifting scheme of 504(b). Not just the remedies that are available, but the burden shifting as well.

And the risk that Congress allocated was to the infringer so that the infringer can't just ignore a functioning market for licenses and then make all these arguments later and then get away with it.

To use NIAs is inconsistent with that Congressional policy. It's inconsistent with disgorgement in the first instance. And it's also inconsistent with the particular burden-shifting scheme that Congress enacted here.

And here's how we know, Your Honor: Because the use of NIAs is one step. They construct this counter- -- very complicated counterfactual, and then they compare it to what they say was the real world. And all in one fell swoop they come up with, this is the answer.

That's not what Congress said. Congress said, first, plaintiff proves the gross revenue; then defendant apportions.

And what defendant apportions, Your Honor, in the language of the statute, is not noninfringing attributes -- or infringing attributes versus the world of possible alternatives. It's infringing attributes versus noninfringing attributes.

So once it gets to the defendant, the defendant has to take it and say, okay, here's the number. Maybe I disagree with your calculation of profits. I've got my own. And then I'm going to separate out the items of value. I'm not going to compare those to everything in the universe that could have been considered.

And that's what Congress did. And what they're proposing to do is inconsistent with the text, that scheme, the structure. And it's inconsistent with the policy.

And none of the cases support it. And to the extent the cases are on point and not dicta, they counsel against it. In the ***Frank*** case, Your Honor, we've made much of it in the papers. I don't need to belabor the point, but here's what the Court said in ***Frank***. There was an infringing stage show. It was a variety show, so it had a bunch of different scenes. Some of the scenes were from the popular show -- then-popular show Kismet.

The Court didn't say, when looking at the box office, the casino revenue or the hotel revenue, how much of this is attributable to those scenes from Kismet?

And this is getting to Mr. Van Nest's point a little bit too.

The Court said, is there a causal link because the hotel, the casino, the gaming and the hotel operation revenues, are those enhanced by the stage show?

And there was one document that the Court relied on in that case. It was the MGM Public Report. And the MGM Public Report said, Our stage shows enhance our casino, gaming and hotel revenue.

And that was it. That was enough for the causal link to the show, because the show was the infringement. It included the infringing parts.

The Court didn't say, I've got to look at whether it was Kismet that caused somebody to go play at the blackjack table

tonight for a few hours. No. That's not the standard.

And *Polar Bear* makes that clear too, Your Honor. In *Polar Bear* there's a video ad at a trade show. Part of the video ad is a scene with a kayaker going down the rapids. They don't say, did the scene with the kayaker going down the rapids cause the increase in sales at the trade show. They say the expert offered proof that the ad caused an improvement in sales at the trade show. Both the infringing and the noninfringing elements.

So the standard here -- Mr. Van Nest is conflating causation and apportionment. And that's partly what's wrong with this whole NIA approach. It conflates causation and apportionment, reduces it to one step and, apart from driving the value down in the hypothetical license, allows the infringer to retain benefits that it actually received in the real world as business circumstances developed from the -- from the use of the infringing material.

So, Your Honor, this is not consistent with Congressional purpose to use NIAs.

Frank said, in the case the defendant argued, Two years after the show started, we took out the Kismet scenes. We took out the Kismet scenes. They were no longer in there two years later, and our operations kept right on chugging as good as they ever were. We took it out. It's not infringing anymore. Still had a great performance. The Court said no.

Now, is that a categorical indictment of noninfringing alternatives in modern language? It is not. But is it on its facts a clear rejection of the principle that Google would have the Court apply here? It is.

THE COURT: At least on that particular, the Court said that the two-year run with the infringing material in there had momentum that carried forward into the -- you know, helped promote the show. It had already been popular.

So it's not quite that clean an example, but, you know, I see your point.

MS. HURST: So, Your Honor, on the disgorgement point, on the disgorgement causation point, *Polar Bear* says reasonable association, causal link, it's the test. Is there a reasonable association?

The Court has articulated our position very well. I don't want to overstep and repeat anything that the Court has said. But it's truly a two-step piece here. The APIs were important to Android, and Android generated the revenue. That is absolutely the reasonable association that we are proffering with respect to this advertising revenue.

Now, Your Honor, I think the idea that Android generated the revenue can hardly even be in dispute. I mean, they called it "direct revenue" in their own internal documents. I think we put a picture of one right there in our opposition.

Your Honor, I'll hand up to the Court a document called

"Introduction to Android." It is Bates-numbered GOOG0010338 through -386. And this is a May 2015 document, Your Honor.

THE COURT: Okay. Thank you.

MS. HURST: And if we just go to the first text page of this, the platform overview --

THE COURT: All right.

MS. HURST: -- the very first bullet point, Your Honor:

"The Android ecosystem is central to Google's success over the next three to five years. In 2015, $15 billion of revenue will occur on the Android platform. 5 billion of direct revenue from planned hardware sales, with an additional 10 billion of revenue from ads on Android."

That's bullet point one.

Bullet point two:

"The platform is critical for distribution of all our products, driving activations and usage at a relatively low incremental cost. The platform in critical."

So, yes, they created a search engine. Yes, they created an advertising delivery network. But they needed a mobile device to deliver that in the way that people were expecting them to deliver it.

And that goes, Your Honor, to the window of opportunity. In Google's 2004 10-K. It said if we do not capture these existing revenue sources, our search ad revenue on non-PC

devices, it is a risk to our business.

It's the 2004 10-K. Should I hand it up?

THE COURT: You don't have to, but did you read it exactly?

MS. HURST: I will read it exactly, Your Honor. Give me one moment.

I have too many binders. Where's my Window of Opportunity binder, guys?

All right. It says under the risk factors, Your Honor.

"If we are unable to attract and retain a substantial number of alternative device users to our web search services, or if we are slow to develop products and technologies that are more compatible with non-PC communications devices, we will fail to capture a significant share of an increasingly important portion of the market for online services."

This is page 58 of Google's 2004 10-K.

THE COURT: All right. Okay.

MS. HURST: So, Your Honor, there's a lot of other evidence about window of opportunity. And we summarized it in the appendix to the Malackowski opposition, but I'll just briefly identify a few other pieces.

Mr. Rubin testified in his deposition, Mr. Rubin, who was one of the founders of Android and the head of it:

"You have a window of opportunity in smart phones.

You have to ship as soon as feasibly possible. I mean, you go to extraordinary lengths to ship sooner, because it's a very dynamic market and it could shift direction at any time. So my job was to do everything I possibly could to get my solution to the market in the shortest time possible."

And that is, Your Honor, Rubin deposition at 178 to 180. I'll hand up a copy for the Court.

THE COURT: Didn't you summarize all this in your brief?

MS. HURST: We did, Your Honor, and in the appendix.

THE COURT: Just rest on that.

MS. HURST: All right.

THE COURT: Time is short, and I don't want --

MS. HURST: All right. Let me do a little bit of the technical evidence, Your Honor, because that is the stuff that is not so readily understood from the summary in the brief. And it's technical evidence about why Java is important to the Android platform.

THE COURT: Okay.

MS. HURST: All right. So we talked a moment ago, and actually I think Ms. Anderson mentioned, the evidence that Android does not work without the 37 APIs or any of them.

Your Honor, our expert, Professor Doug Schmidt, who is a computer scientist and a Java expert, tested the significance

of 37 APIs in a technical experiment. And I'm handing up a demonstrative, Your Honor, that summarizes the portions of his report that are indicated.

So what he did was, first, he removed all 37 of the packages. And he found, of course, that Android failed. He also then removed the individual copied packages. And he again found that each individual package, that the Android platform is dependent on it. It won't compile and it won't run without it.

And then, Your Honor, he removed the copied declaring code only. So not the implementing code, nothing else. And it also failed.

Now, Your Honor, this is not a complicated noninfringing alternative world scenario. This is a simple dependency test. It is, was the Android platform dependent on the APIs and the declaring code? And the answer to the question is yes.

That is not true for every single line of code in Android. There are plenty of things that you could remove and it would still compile and it would still run.

It might be that sometime that, you know, some application needs something and doesn't find it. But it is not true -- these are the core libraries, Your Honor. And so there is a tighter relationship between the fundamental parts of the platform and what they took and other parts of the platform.

And to show that, Your Honor, our expert, Dr. Kemerer,

tested the centrality of the copied classes in Android. And he used the page rank method, which is, Your Honor, the invention of the Google founders, Larry Page and Sergey Brin. And I'll hand up Your Honor a demonstrative summarizing the results of what he found.

Your Honor, page rank, by the way, as I mentioned, was developed by Larry Page and Sergey Brin. It's the basis for the search engine at Google. And it's a measure of the importance of information in a network.

In using page rank, Your Honor, Professor Kemerer determined that the 37 Java API packages are 32 times, almost 33 times more important than the other Android Java classes in the platform.

That is, their connections to all the rest of the APIs are 30 times -- 33 times more significant than the Android Java APIs, the stuff that Google wrote for itself in the Java application framework.

Your Honor, if we --

THE COURT: May I ask you a question about that 37?

MS. HURST: Yes.

THE COURT: And this is based upon reading the Federal Circuit decision.

The Federal Circuit decision seemed to indicate that three of the -- three of those possibly -- it didn't say for sure, just possibly, might be deemed fair use. Maybe all 37. But

that for three of them it might be necessary to have those to even use Java at all.

MS. HURST: Absolutely right, Your Honor. And that's the next number.

THE COURT: Well, on here, I mean, have you subtracted out the --

MS. HURST: We did.

THE COURT: Okay. Good.

MS. HURST: We did, Your Honor.

THE COURT: Let's see what that looks like.

MS. HURST: We did. It's on here.

What we did was, that was actually -- although the Federal Circuit called it 33 packages, what it was was about 60 classes that were in Trial Exhibit 1062 last time around, which Dr. Reinhold testified.

So we took out those constrained classes. That's what I call them, Your Honor. They are technically constrained by the Java programming language.

We took them out. And then Professor Kemerer tested it. 26 times more important.

THE COURT: All right. So you have -- all of the ones the Federal Circuit was saying might be necessary to use Java all got taken out?

MS. HURST: Yes.

THE COURT: All right. So that is the smaller circle,

but it's still a pretty big circle.

MS. HURST: Still a pretty big circle, Your Honor. 26 times more important.

THE COURT: I have this question, though. You see the small dot down there?

MS. HURST: Yes.

THE COURT: Are we going on area or are we going on diameter?

MS. HURST: Your Honor, this is a mathematical representation, correct -- correct on circumference. Circumference, Your Honor.

THE COURT: You can see how that could be misleading?

MS. HURST: Yeah. Well, Your Honor --

THE COURT: If it's area, then you've got to square it.

MS. HURST: Right.

THE COURT: I mean, if you are going to get -- if you tried to put 26 of these inside that big circle, you would actually get several hundred in there. And the reason that looks so much bigger is because you're going off of -- you're not using diameters -- circumferences is not squared.

MS. HURST: Yeah, Your Honor, you're right. We need to fix that.

THE COURT: So I think you need to fix that.

MS. HURST: We'll fix that before trial. But you've

got the point, Your Honor. Thank you. And, actually, that's exactly right.

THE COURT: 26.

MS. HURST: 26 times is a lot.

THE COURT: It's a big number.

MS. HURST: It's a big number, Your Honor.

Now, the other thing that our technical experts tested are the relationship of applications and the platform to the APIs -- sorry, relationship of applications to the APIs, the infringing APIs, Your Honor. And they looked at a couple of different things. They looked at Google's applications and they looked at popular third-party applications.

And I'm going to hand up two slides on that, Your Honor.

THE COURT: All right.

MS. HURST: So on the Google applications -- let's start there, Your Honor. This is just ranked in descending order of the Google applications. How many of the 37 packages they depend upon.

The one I really want to call to the Court's attention is Google Search at 15, 15 of the 37 packages. Every dollar they earned on that search advertising came from an app that was dependent on 15 of the packages.

Now, Your Honor, I could stand here all day long and argue about why this is not an indirect profits case; it's a direct profits case. *Polar Bear* says it doesn't matter. The test is

the same. Is there a reasonable association?

This dependency analysis is direct evidence of a link between the APIs and the search advertising revenues. No matter what you say the standard is -- and Mr. Van Nest has it wrong -- this would meet it, Your Honor.

And, Your Honor, it's also clear that popular third-party applications use the copied packages in the platform. And that's the other slide, the other demonstrative that I provided, Your Honor.

These were some examples of the most popular that we've listed here. Facebook. Instagram. EBay. Browsers. Fruit Ninja's, a game. NetFlix. Angry Birds Rio. And all of them use the Java API packages in the platform.

Our expert looked at the top 100 third-party apps, found that the average number of dependencies was 11 and a half; the minimum was 3; and the maximum is 23. And they produced schedules, Your Honor, with all this testing and showing all of it.

THE COURT: Who is the expert who did all this? Kemerer?

MS. HURST: Kemerer, Your Honor. And he's a professor at the University of Pittsburgh and Carnegie Mellon. He's both a computer scientist and a business professor. So he's kind of -- he's an economist actually. He studies software metrics like this. And he's just the right guy to come and talk about

software metrics and how to measure importance in software. And that's what he's done here.

And, Your Honor, there's one more thing that he did. And I mentioned this during my argument earlier. It was about the stability that was contributed by the 37 Java API packages to the Android application framework.

And I'm handing up a demonstrative showing that analysis as well.

So there are two diagrams here, Your Honor. The one on the left is the core libraries. And it shows how the Java APIs -- and this is just the declaring code, by the way, Your Honor -- drove the stability in the core libraries in the Android platform over the entire period of its release.

So that first diagram shows the red. That's the 37 copied Java APIs. Very few changes, very stable. The purple is the rest of what's in the core libraries that's contributed by Google. Unstable, changing all over the place.

But because the copied Java APIs are such a significant part of the core libraries, they stabilized -- you can see that's the green line, Your Honor -- stabilized the core libraries as a whole, kept it relatively flat.

And then we can look at that core libraries line in the second graph -- and that's the green line again; it carries over -- and compare it to the Java application framework as a whole. And you can see that that core library part of the

framework was crucially important stability to the overall application development.

The other stuff that they were writing was changing all over the place.

THE COURT: Well, when you say it's changing, this just looks like there were more packages of it. It doesn't -- I assume that the later versions are backward compatible --

MS. HURST: Well --

THE COURT: -- with the programs written a couple of years earlier, that even though they have -- the new Android is more capable, it still will run the old applications. Or am I wrong about that?

MS. HURST: Actually, that is absolutely the point of this analysis, Your Honor. When those declarations change, it breaks things. And that's why app developers don't like it.

And so, Your Honor, they had to clooge it up and fix it. And over time they fixed it by having this thing called Google Play Services, which tried to maintain compatibility and diminish fragmentation, that they were suffering significant fragmentation across their versions of Android. And so --

THE COURT: So maybe I misunderstood. So this one on the left, on the purple line, is indicating that on the noncopied APIs, the ones you call Google core libraries, you're saying that those were so goofed up and full of bugs that these numbers are actually changes and deletions to fix them?

MS. HURST: Yes. Well, whether it's buggy or whether they're making changes for business reasons, the bottom line is -- and I didn't bring the chart on this, Your Honor. Professor Kemerer found that, you know, the API became stable -- the Java API became stable after ten years. And it basically gave Android this huge measure of stability throughout this period, which was tantamount to about an 8-year head start. And he will come and testify to that effect.

And, Your Honor, that's --

THE COURT: Why were there any -- the red line does go up some. Why were there any changes to -- to the 37?

MS. HURST: Your Honor, because there were changes as Versions 6 and 7 of Java were released. And Google incorporated those changes as it went along.

THE COURT: All right. Let me ask you a question. Is there a motion directed at Kemerer?

MS. ANDERSON: Yes, there is, Your Honor.

THE COURT: Have we gotten that one yet?

MS. ANDERSON: We have not. You haven't scheduled it for argument yet, Your Honor.

THE COURT: Okay. All right. We need to move on.

MS. HURST: All right. Your Honor, bottom line, we summarized all the evidence in the opposition. There's a window of opportunity. There's technical dependency and, frankly, technical significance, a high degree of technical

significance to the platform. And then there's the carriers and the commercial circumstances related to the carriers and the OEMs.

And there are a number of documents saying the carriers require it. These are all summarized in our appendix, Your Honor. The carriers require it. The OEMs, they have credibility with the OEMs, with 180 carrier deployments. Java dominates the wireless industry. It dramatically accelerates our schedule. We're building a Java-based system. That decision is final. They showed their functional requirements to the carriers and to the OEMs.

These actually list out the APIs, Your Honor. They gave documents to the OEMs that actually list out in them the infringing APIs so that they would know that they were in here.

And, Your Honor, all of that --

THE COURT: What year did that happen?

MS. HURST: One minute and I'll hand one up here, Your Honor.

THE COURT: It's okay.

MS. HURST: They're going to get it to me and I'm going to hand it up in a moment, Your Honor. I apologize.

THE COURT: That's all right.

MS. HURST: We have it, and they list them out.

Anyway, Your Honor, this whole thing can be summarized by what Mr. Lindholm said in 2010, when they -- you know, Oracle

had purchased Sun, and there was a new sheriff in town. And Mr. Lindholm went and he looked -- Mr. Lindholm looked as hard as he could to find any other alternative. Which, by the way, Open JDK was there then, too, Your Honor. And he said, All the alternatives suck. We need to take a license.

Your Honor --

THE COURT: Now, is he talking about -- is that the famous Lindholm email?

MS. HURST: It is, Your Honor.

THE COURT: The other side said the other day that that was only talking about patents. Is that true?

MS. HURST: It doesn't say that on the face of the document, Your Honor.

THE COURT: Well, what does the -- what do the other lead-up memos say or emails say?

MS. HURST: Well, so Your Honor excluded this. And I don't want to do anything to open the door to it. So just to be clear, we're not talking about settlement negotiations; right?

What the lead-up to it was, was Oracle was -- you know, the parties were discussing whether a license needed to be taken. And both patent and copyright were part of that discussion. Copyright is one.

THE COURT: Is that right?

MS. ANDERSON: No.

THE COURT: Since we're on this, why isn't that right?

MS. ANDERSON: It's not correct, Your Honor.

The -- there's actually a PowerPoint associated with the meeting that happened between Google and Oracle prior to Oracle suing Google.

In that presentation, Oracle threatened Google with patent lawsuit. And that's outlined throughout. There's -- the word "copyright" or "copyright allegations," much less copyright allegations against the declarations in SSO at issue here --

THE COURT: I'm sorry. Are you saying the word "copyright" was in here or was not in there?

MS. ANDERSON: Was not.

They talk about -- they talk about a series of patents throughout this PowerPoint presentation. And the only argument that, to my knowledge, Oracle has seized upon to try to suggest that copyrights were addressed in this PowerPoint is an allusion in a bullet point to something about rights to copy something. So copyrights were not at issue and were not threatened as part of that presentation.

One of the problems is that the Lindholm email is something that happened after that, after that particular meeting between Oracle and Google.

And one thing we have flagged in -- I believe it's one of our summary -- it's one of our summary -- oh, the one that you had said you might hear orally after openings, Your Honor, is

that were Oracle to use this document and present it to the jury to suggest this is an admission by Google that it knew it needed a license to use the declarations in the SSO, Google needs to be able to explain no, in fact, this is on the heels of a patent infringement lawsuit threat. And that's the issue.

THE COURT: Well, why wouldn't we able to do that? Why wouldn't that be admissible?

MS. HURST: I'd like to hand up a document that we're talking about, Your Honor, if that's all right.

THE COURT: You can. But if the Lindholm thing is going to be used, we certainly are going to let Google explain the context and what Lindholm had in mind. Even if that involved settlement discussions.

So, all right. What do you want me to look at here on --

MS. HURST: Your Honor, I just want to show you. It says, "We've been asked to investigate what technical alternatives exist to Java for Android and Chrome."

It doesn't say what technical alternatives that don't infringe the patent. It says "what technical alternatives."

The parties discussed other IP at the time. And he doesn't say, I only investigated what technical alternatives would work here to get around patent infringement.

And they're even talking about Objective C, which is one of Dr. Leonard's noninfringing alternatives.

So this is -- this is exactly what we're talking about

here when we're talking about noninfringing alternatives.

THE COURT: Well, what was the -- what was he responding to here? And do we have anything more to and from Andy Rubin, Dan Grove, Lindholm about the context of this email?

MS. HURST: Your Honor, the Court issued an order on this in the first phase. That is at ECF Number 676. And the Court -- the Court may recall they tried to withhold this as privileged. And the Court noted in its order:

"Mr. Lindholm was a former Sun engineer who cowrote the book *The Java Virtual Machines* Specification, was a member of early Java development teams. He joined Google in July 2005 and immediately worked on Android as a generalist and interpreter of the engineering business and legal ecosystems. One of his roles on the Android team was to help negotiate a license for Java. Mr. Lindholm's backgrounds shows he was quite knowledgeable about Java and Android technology as separate platforms, any potential crossover. Or so a reasonable jury could find.

"His admission that Google needed a Java license is relevant to the issue of infringement. The email is also relevant to damages. It goes to show that Google had no viable alternatives to Java. It goes to willfulness because the email was sent after Oracle accused Google of infringement."

Then the Court does qualify that statement by referring to high likelihood that Google's actions constitute an infringement of a valid patent.

Your Honor, the Court carefully circumscribed what could be said about this document the first time around, in the first part of the case.

THE COURT: What did I -- I don't remember that, but what did I say was a limitation?

MS. ANDERSON: Your Honor, the order that Oracle's counsel was reading from obviously was an order Your Honor issued in a case that had patents in it. And that's why Your Honor talks about its relevance to patent case.

And during the trial testimony, Mr. Lindholm was allowed to testify in matters as long as it wasn't a matter on which -- I'm paraphrasing Your Honor's order, but if it wasn't a matter on which Google had instructed Mr. Lindholm not to answer on grounds of privilege.

So counsel was allowed to ask questions that basically had not been instructed upon. And I think we even got Your Honor's guidance on one or two questions.

THE COURT: You mean we've got that problem here too, that he stonewalled in the deposition?

MS. ANDERSON: Well, no. Actually, Your Honor, we do not believe any stonewalling evolved.

The 408 PowerPoint we are talking about is something that

is available to both parties. It's a document Oracle prepared. It was a presentation to Google of what they were threatening was the subject of suit. And it was given to Google.

That is the context that the jury would need to understand for that email to make any sense. All of this is on the heels of a threat of litigation that came out of the blue from Oracle, who was shifting its position --

THE COURT: Well, why don't you -- hold on. Look. I can just tell you the answer.

I don't remember exactly what I said last time, so this is tentative. But this email certainly should come in. I'm sorry that you forgot to put the word "copyright" or "patent" in here, but it doesn't say that. It says "Java." Everything "sucks" but Java. So one reasonable inference is that you needed a copyright license. True, there were patent issues too. But -- all right.

So if he wanted -- if Mr. Lindholm wants to get on the stand and say, "Oh, no, I didn't mean patent, I meant copyright or I meant both," and if he wasn't precluded by refusals to answer in the deposition, then he can testify to that. And you could put on the slide show that shows that they were talking about copyright -- I'm sorry, talking about patents.

MS. ANDERSON: Patents, yes.

THE COURT: But there's no way I would keep this out of evidence on your say-so that he must have just meant

patents.

MS. ANDERSON: And actually, Your Honor, we raised it in a way not to ask that the Court exclude it period. We said to the Court, Your Honor, if this is going to come in, if Oracle is going to offer it and Your Honor allows it in, please, Your Honor, you also need to allow in evidence from Google explaining what it was.

And Oracle is taking the position in this case that we're not allowed to offer in the PowerPoint, that we're not allowed to explain that premeeting, that it's all barred, that they get to hide -- you know, hide behind 408 for that, but still offer this in evidence in the issue.

THE COURT: Well, I'm pretty sure that Google is right on that one, and Oracle is wrong. Because the discussions only protect -- 408 only protects actual offers. It doesn't protect slide shows that show why you need -- I don't think it goes that far. Anyway --

MS. HURST: Your Honor, may I --

THE COURT: If you're going to use this, Ms. Hurst, you're not going to be unfair about it. They get to say their side to it.

MS. HURST: Understood.

THE COURT: You can't have it -- this is still America. And they get to have their side of the story told to the jury.

MS. HURST: So here is the problem I have with that, Your Honor. And I understand what the Court is saying. We've got two issues.

First, it wasn't just a PowerPoint. It was a discussion at which a bunch of lawyers and executives were present. So they're going to get dragged in to testify about what was actually said. And copyright was said. I'll tell that you, number one.

Number two, if they're going to open the door to settlement discussions, then we want to make an offer of proof to the Court about what was said to the mediation in front of Judge Grewal the first time around, and what Mr. Rubin said about whether he could use Open JDK or not in those discussions.

I won't disclose the content any further than that, Your Honor. But if they're going to open the door to settlement discussions, it's going to go right back to Open JDK.

MS. ANDERSON: Your Honor, obviously, the point that Oracle's counsel just raised, that the subject matter of mediation discussion, which is absolutely privileged, is in any way relevant to what Mr. Lindholm might have meant back at that time --

THE COURT: Was Lindholm in the meeting where these PowerPoints were shown?

MS. HURST: I do not believe so. I don't know, Your

Honor.

THE COURT: Well, who asked him to -- was Andy Rubin in that meeting?

MS. ANDERSON: I'll have to double-check. I don't --

THE COURT: Well, somebody asked Lindholm to do this.

MS. ANDERSON: We'll confirm, Your Honor.

THE COURT: Somebody asked Lindholm to conduct his review. And maybe that person was in the meeting.

MS. HURST: So the Court in its --

THE COURT: Why don't we get Lindholm to tell us what he meant here.

MS. ANDERSON: Right, Your Honor.

THE COURT: What will he say?

MS. HURST: He refused to say at his deposition, Your Honor. And that's the problem.

MS. ANDERSON: I don't believe that's entirely accurate.

Your Honor, I would need to review the transcript to make sure that I provided to you accurate testimony of what happened, because that was not a subject for today. I didn't have it before me. But, yes, we will check to see exactly what he said in deposition and exactly what he said in trial. We will confirm that for Your Honor.

MS. HURST: I'll read to the Court its prior order.

THE COURT: What is it?

MS. HURST: (As read:)

"Specifically Tim Lindholm refused to answer on grounds of attorney-client privilege and work product doctrine the following questions:

"First, what technical alternatives to Java he investigated.

"Second, who thought the alternatives all sucked?

"Third, what he meant by technical alternatives.

"Fourth, what license terms he had in mind.

"Fifth, whether any statements of fact or opinion he made in the email were false."

Those were all questions that they refused to let him answer in the depo asserting attorney-client privilege. And they moved to exclude the presentation in the first trial under Rule 408.

So they can't come here now and say that somehow that he gets to say that this was just patent, because --

THE COURT: I wish one of you had let me -- brought this up sooner. Maybe what we would have done is just say go depose this guy again, and I'm going to order him to answer all those questions.

Why didn't somebody serve that up to me?

MS. HURST: Your Honor, Google took a position throughout discovery that they would not agree to permit the redeposing of any witness who was previously deposed regarding

matters that occurred prior to the first trial. And they steadfastly refused to produce any witness on that subject matter.

And rather than burden the Court with a discovery dispute of that sort, we, you know, proceeded as if we would be limited to -- and also in light of the Court's comments about how we were not going to reopen everything, we proceeded and took depositions regarding the later time period.

MS. ANDERSON: Your Honor --

MS. HURST: So they absolutely refused to produce any witness, categorically refused to produce any witness to come testify about anything that happened before the first trial.

MS. ANDERSON: Your Honor, I am afraid that is incorrect. And actually the protocol we followed for this retrial discovery was a protocol that we reached agreement on in large part because Oracle also did not want to have all its witnesses redeposed.

There was no specific request from Oracle to redepose Mr. Lindholm --

THE COURT: You could have brought it up too. I mean, you could have been thinking there: My God. We're in such a jam. We told him not to answer those questions. He refused, we can serve him back. He can answer those questions, and then we won't have that problem.

MS. ANDERSON: I would like to point out, Your Honor,

that none of the questions that I understand that have just been read from the record from Oracle's counsel is a question about what is meant by the word "Java."

So, in any event, this is an issue that we only raised to the Court because we did see it as a situation where Oracle was seeking to introduce a document in the record but preclude us from offering a document that would explain it. And we raised it to Your Honor to ask that the Court provide us with --

THE COURT: I'm looking for the nexus. All I have is your say-so that that slide show has anything whatsoever to do with this. You have no offer of proof. You can't show the connection between -- Lindholm wasn't even at the meeting.

MS. ANDERSON: We certainly can provide context that will make it relevant, Your Honor. And we can also bring with us hard copies of that presentation tomorrow, if that's helpful to the Court.

MS. HURST: Your Honor, the bottom line is the guy was asked a bunch of questions about the document. At least two of these, probably more, three of them at least would have elicited the answer "Open JDK," if that's what they meant, and would have elicited a copyright license, if that's what they meant.

What were the technical alternatives? Open JDK.

What did he mean by technical alternatives? Open JDK.

THE COURT: How are you going to explain at trial that

he didn't mention Open JDK?

MS. ANDERSON: Your Honor, what we are going to offer, if Oracle offers this document, is that this witness was asked about -- this witness was discussing Java on the heels of a threat from Oracle just about patent litigation.

And there is a material difference between a copyright license that people are talking about in the FAQs, and otherwise, to Open JDK and a patent lawsuit that Oracle is threatening.

So we have two different issues here. Oracle continues to try to mix apples and oranges, as if copyrights and patents in these numerous email discussions as if they are the same, and they are not.

THE COURT: Let me ask a question. In that meeting, Ms. Hurst, where the slides were shown that preceded this email --

MS. HURST: Your Honor --

THE COURT: Wait, wait, wait.

Go ahead. Make your point, and then I'll ask my question.

MS. HURST: Okay. Your Honor, I have statements made from the prior trial record.

Ms. Anderson, argued at 2827-2828 of the prior trial record:

"There are declarations before this Court where Mr. Lindholm made clear several times that he never

engaged in a patent infringement analysis with respect to the Android platform ever with regard to any patent."

Mr. Lindholm signed a declaration, which is found at ECF 497-1, when he said:

"When I wrote the email, I had never reviewed the patents. And I did not, in fact, undertake to analyze whether the Android platform infringes any of the patents. I conducted no analysis of and had no opinion about whether the Android platform actually infringes any of the patents."

And then he refused to answer a question in his depo on what were the technical alternatives and what license terms he had in mind.

Your Honor, what license terms he had in mind. That is directly on point here. The guy says the alternatives all just suck. He didn't conduct a patent infringement analysis. That only leaves one thing. This is about copyright.

MS. ANDERSON: Actually, Your Honor, the context of all these earlier discussions about Mr. Lindholm and the motions in limine that concerned the email all related to the fact that Oracle was trying to seize upon this document as evidence that Mr. Lindholm was some kind of technical expert who had analyzed Android and determined that it was infringing, and infringing period. Because Oracle was careful not to be specific about what they were talking about.

And we had been trying to, among other things, make clear for the Court certain aspects of Mr. Lindholm's testimony. And that is part of the testimony that was read.

That doesn't change the fact that what Oracle is trying to do here is to conflate patents and copyrights to make the jury think that this is a witness who is admitting that Java copyrights and copyrights to APIs labels, which is just the declarations, that that is somehow being admitted in this email.

We are simply saying, for purposes of putting this in context -- and obviously the burden is on Google to make the connection, but that presentation, the 408 presentation and the things that went on in that time period, established that Mr. Lindholm couldn't have been talking about a concern about a copyright lawsuit, because the only thing in the air was a suit threatened by Oracle.

MS. HURST: Your Honor --

MS. ANDERSON: A patent suit threatened by Oracle. Excuse me. I left a word out.

THE COURT: No more.

MS. HURST: Yeah.

THE COURT: No more.

At some point I just have to go with what the words here are. And Lindholm says that -- he doesn't say "patents." He doesn't say "copyright." He says that "Larry and Sergey said

to investigate what technical alternatives exist to Java for Android and Chrome. We have been over a bunch of these and think they all suck. We conclude that we need to negotiate a license for Java under the terms we need."

Now, that's -- why do I even have to get into whether it was copyright or patent or whatever? This is pretty good evidence that Google gave it some thought. And whatever alternatives were on the table back then, they all sucked.

MS. ANDERSON: Your Honor --

THE COURT: And if you want to get somebody to come in here and explain it away, maybe you can, subject to preclusion on account of refusing to answer questions.

MS. ANDERSON: Because, Your Honor, that statement, that last statement is what is at the heart of this. Oracle wants to use it for the jury to hear the statement that we need a license to Java.

But the need for a license is a comment made in the context of a threat that was just made by Oracle to sue on patents. And how can the jury -- have Oracle argue to the jury that, oh, this is about an admission that they needed a license to the copyright.

We need to be able to say threat here from Oracle, threat for a patent lawsuit. By the way, a patent lawsuit that Google won. This was a specious threat because they had no basis to sue us for patent. And we won that before a jury.

So there's a whole bunch of can of worms opened by this email. But one thing that's very clear is putting it in without context is wholly unfair to Google.

THE COURT: Well, I have told you that Mr. Lindholm could come in here all day long and testify about what he meant and accepted the fact that somebody on your side had the idea to instruct him not to answer questions.

And when you do that, you are taking a huge gamble that what the judge is going to do is exactly what I did last time, which is you can't have it both ways. You can't stonewall in discovery, only to later say, oh, we take all those back.

So I -- there's no doubt that this email should come into evidence. And the only issue is how much you get to explain. And if Lindholm hadn't stonewalled in the deposition, he could explain all day long what he meant.

But he -- he refused to answer certain questions, and there are consequences for doing that.

So if there is some unfairness here, who started that unfairness? It's your side.

MS. ANDERSON: Actually, Your Honor --

THE COURT: You can't blame Oracle for this one. You are the one that instructed him not to answer.

MS. ANDERSON: Your Honor, we asserted valid attorney-client privilege instructions. And, in fact, because the communications at issue were privileged to which

Mr. Lindholm would have had to answer, we needed to assert those instructions. But he answered a whole host of other questions.

And there's -- the only unfairness that would happen here is if the jury sees this and doesn't get to know the context. Because the concern about a license that he's talking about is because we were just sued -- we were just threatened with suit by Oracle for a patent infringement case. That's the fairness issue. And really unfair here when we won the patent case.

So we wanted to make sure Your Honor saw this issue. That's why we raised it by motion in limine and --

THE COURT: But you could have made the decision to waive any privilege on that. You decided to stand by the claim of privilege and to keep the other side from knowing that information. Now you want them to know it and you want to be able to use it. So if there's any unfairness here, maybe you're the one that caused the unfairness.

MS. ANDERSON: Well, there's no privilege in terms of attorney-client attaching to the 408 presentation or other facts that surround that. And witnesses testified about it in depo.

THE COURT: But you have to make a connection.

MS. ANDERSON: And we know that's our burden to do. We understand that, Your Honor.

THE COURT: Well, I'm not making final rulings on any

of that. I've given you some indications.

All right. I've got to bring this to a close.

MS. HURST: All right. Your Honor, the fundamental point here is there was a window of opportunity. They needed Java. They didn't have any alternatives. Java is -- the APIs -- one more document, Your Honor. Trial Exhibit 215.

THE COURT: One more. Honestly, I've got some things to raise.

215, at least it's mercifully short.

MS. HURST: (As read:)

"With talks with Sun broken off, where does that leave us regarding Java class libraries? Ours are half-assed at best. We need another half an ass."

Java API.

THE COURT: They must go to school to learn to write emails like this.

(Laughter)

THE COURT: The jury is going to love these emails.

MS. HURST: Bottom line, Your Honor, this evidence gets us over the *Daubert* hump for Mr. Malackowski to testify that these revenues are reasonably associated with the infringement. Java is important to the Android platform.

THE COURT: All right. Thank you.

I need to raise some things with all of you.

What motions in limine have I set for tomorrow?

MS. HURST: Are we continuing with damages? I think that's what we thought.

THE COURT: I thought we were. But I'm fuzzy enough now, I don't remember which ones they are.

MS. ANDERSON: I think, Your Honor, you're still probably working on the Malackowski motion in limine.

THE COURT: No, we've heard enough on that one.

MS. ANDERSON: Okay. We need to complete the Leonard motion in limine, which finishes up the apportionment side of the issues. And then Dr. Kearl --

THE COURT: But I don't want to hear anything more about noninfringing alternatives. In fact, I don't want to hear any more about that. It's an important issue, but we've got so many other things to cover.

MS. ANDERSON: Right. One thing we request permission to do tomorrow, Your Honor, though, is just to give a brief overview of the counterfactuals that Dr. Leonard had done so the Court understands it, because we don't believe they are all --

THE COURT: Every one of them is a noninfringing alternative, except for the ones where he has got 1.4 percent he allocates based on lines of code.

MS. ANDERSON: Well, actually, we don't believe they are all noninfringing alternatives. We wanted tomorrow perhaps just to take a few moments to explain that to the Court.

THE COURT: All right. Maybe.

What other motions do I have?

MS. ANDERSON: And Dr. Kearl-related motions.

MR. COOPER: Yes. We would like to have Dr. Kearl addressed tomorrow since he will not be here after that.

THE COURT: All right. We're going to do Dr. Kearl -- two --

MR. COOPER: There are two.

THE COURT: All right. We'll do those in the morning. And then maybe if we have excess time, we'll go to Kemerer because we brought him up today.

Okay. I've got a few other things I want to ask you-all about. I'm going to -- I'm just going to lay out some problems for you. I don't have answers. That's why we have brilliant lawyers.

But I'm -- the Federal Circuit, as I said, drew a possible distinction between 3 versus 34. And maybe the jury would decide it was 15 versus 12 or 22, using the word "necessary" to use the Java Language. Maybe even all 37. Who knows.

But there is a more-than-distinct possibility that the jury would find that 3 were fair use. Yet, not a single one of your reports -- well, that's not quite right. The Kemerer report has that smaller circle in there. All right. So I stand corrected.

But you need to be aware of what happens to the expert

reports, and are they even useful to the jury if the jury decides that it's not 37, but 34, or some other number, like 12. There you go. I raise that for you.

Next question: How much of what happened before the Court of Appeals before the Federal Circuit will be explained to the jury?

I can imagine different scenarios. I hope the lawyers will agree on this. One scenario would be to say absolutely nothing. Another scenario would be to explain that the entire litigation -- we say the lawsuit got filed in -- was it 2010 or 2012?

MS. HURST: 2010.

MR. BICKS: '10.

THE COURT: 2010. We went through a whole trial, hung verdict, goes up on appeal in the federal circuit. You know, explained that I ruled a certain way, the Federal Circuit reversed me, and we're bound to honor what the Federal Circuit said. Play the recording where the Google lawyer says, "Purely commercial."

I don't know the answer to this, but there are some good reasons and not so good reasons to let the jury know the procedural history of the case.

There's the same thing, but not quite as problematic with the prior trial, with the testimony. For certain, witnesses are going to get on the stand and say something different than

they said last time. If it didn't happen, it would be an unusual trial.

Okay. So then right away the other side is going to want to impeach them up and down with their prior testimony. So what do we say is the origin of that testimony? That's just one -- one possibility. I've asked you already to give me your input on that in the final pretrial statement.

When is that due, by the way?

MS. HURST: Wednesday.

THE COURT: This coming Wednesday? Tomorrow?

MS. HURST: Tomorrow. Oh my, God. Tomorrow.

THE COURT: I guess -- I guess each of you will be doing a lot of talking between now and then.

But, you know, we need -- we've got to decide. I can't just -- I just can't let you lawyers leap up and make a unilateral decision to play the tape where Mr. Van Nest is conceding away the case before the Federal Circuit. I'm exaggerating greatly there. He didn't. But when they say it was a purely commercial right, and whoever it was for your side said right, well, probably you should just admit it and not let that be an issue in the case.

But if it is going to be an issue in the case, I'm put in a tough spot. I probably would allow that recording in. That would be very dramatic. The jury would hear from Washington, D.C., the voices of the judges coming out of the ceiling asking

the lawyer. It would be like, you know -- but I can't imagine that that's not admissible, but I don't know.

I can also imagine things that Oracle would hate to have come out. This is going to cut both ways. So maybe an agreement would be in order.

Here's another agreement. You know, I gave you two days to decide whether these expert replies that I got exercised over would be usable on the initial appearance by that witness, or whether or not that's sandbagging and it shouldn't be allowed.

I invite you, but I'm not requiring you, to just stipulate that they will be deemed to be part of the opening report on both of those two experts. That way you've got one less thing to worry about and one less thing that I've got to worry about. But if you can't, you've got to brief it on the schedule that I gave you.

Let's see. I had another thought. Let me just tell you how this works from the point of view of the poor judge.

Mr. Cooper, you were coming forward to say something?

MR. COOPER: Yes. Just before the break, you asked if Judge Kearl wanted to make a comment on anything that was discussed.

THE COURT: Yes.

MR. COOPER: And there is one item that he would like to.

THE COURT: But he's not a judge yet. You said "Judge Kearl."

MR. COOPER: I'm sorry. Dr. Kearl. He's not a judge, no.

THE COURT: I don't want to elevate him to that status.

Okay. Let's hear what he has to say.

MR. COOPER: Okay.

THE COURT: Professor Kearl.

MR. COOPER: Professor, doctor, yes.

DR. KEARLE: I'm grading this week, so my students think of me as a judge.

I hope the following short comment is helpful to the Court when thinking about causal nexus. And I almost have nothing to say about this. It's a legal issue. But if you think about this as the benefits to Google, there are two benefits Google could get. One is greater ad revenues. The other benefit is a lower cost of getting those ad revenues.

I agree with Google that the ad revenues, at least so far as I can see, are the same on non-Android devices as on Android devices, at least presently. But the costs are substantially lower. Google pays much lower traffic acquisition costs on Android devices than it does on ads on non-Android devices. So Google's net revenues are higher because of Android.

And then the question goes to -- the question Ms. Hurst

addressed about whether or not Android is -- the 37 APIs drive that. But Android certainly, at least in my view, provides at least a cost-saving benefit that directly accrues to Google.

THE COURT: So how does that affect the 8.8?

DR. KEARLE: This just goes to the issue about whether or not there is a causal relationship. The 8.8, in my view, and I think an economist's view, is an apportionment issue.

And I agree with Ms. Hurst on this as well. It strikes me that there has been a conflation here of apportionment and nexus. And at least I believe those are separate issues. One could talk about, sort of, what was the causal relationship, and separately then deal with -- if there is, deal with the apportionment, the 8.8 --

THE COURT: Did you apportion down the 8.8 to the lines of code in question?

DR. KEARLE: I did not, to the lines of code.

THE COURT: What did you -- but you used the noninfringing alternatives approach. At least my memory of what I read. But I don't want to get back into that. But did you, in addition, do some kind of apportionment?

DR. KEARLE: Yes, but it takes a little bit of background. I addressed each of the noninfringing alternatives and made comments on them. I don't take a position on them. I say these are factual issues. And there are legal issues about whether or not they are permissible.

If the jury decides that it's not an either/or, that is that Android would have existed but in a somewhat diminished form, because it couldn't use the 37 Java APIs, then the only thing in this record that would help the jury is the Kim model. Nothing else helps, in my view.

The problem about apportioning to lines is some lines are more important than others. And that just goes to the issue about a larger question about apportionment.

But merely counting lines and dividing by the total number of lines doesn't give you a sense of whether or not a particular line enables something that's worth lots of money versus a line that doesn't enable something or just is something that tracks through the code.

So I don't think line counting, at least from an economist's perspective, helps. But if you exclude that, then the only thing that's left is in the intermediate case in which Android exists but it's not as functional as it would otherwise be. And functional in this sense: It doesn't have as many applications on it as it otherwise would. The only thing that sits in this case, at this point, is Dr. Leonard's use of the Kim model.

THE COURT: Remind me what that is.

DR. KEARLE: A Kim model is an econometric model run by a doctoral student at the University of Minnesota, that tried to look at the choice between platforms, between Apple

and Android and some other platforms, based on the apps that were available. And it was the weight of the apps. So how important the apps were and so forth. She estimates this model.

Dr. Leonard takes that model and uses that model to predict changes in market share when you reduce the number of important apps by some fraction, and that leads to --

THE COURT: I thought every single app used one or more of these 37 APIs.

DR. KEARLE: The --

THE COURT: Or the vast majority.

DR. KEARLE: He does not track, nor do I track, which of the apps rely on which APIs. No -- no expert has done that in this matter.

THE COURT: Well, then, how does the Kim thing help us?

DR. KEARLE: The Kim helps only to the degree that there are fewer apps available.

So imagine a universe in which Android used the 37 APIs and had a large number of apps. They kept a number of 10,000 --

THE COURT: So it wouldn't even work. You couldn't even do it without at least those three. So let's say 34. Let's say you --

DR. KEARLE: In the but-for world, you say, suppose

they couldn't use those 37 APIs. What could they use? Well, they could use a C++ app platform. People could write for that or they could write natively. If you wrote for the C++ or you wrote natively, you couldn't write Java apps. So you exclude the Java apps. So we go from, let's say, 10,000 to some smaller number. I don't know what --

THE COURT: Does C++ work with the Java Language?

DR. KEARLE: It's my understanding that app writers can write for C++. They don't have to write in Java --

THE COURT: And it runs on Android?

DR. KEARLE: And it runs on Android.

THE COURT: Well, how do you do that without -- where did you get that understanding?

DR. KEARLE: Not -- I think the facts in the case are that not all apps that run on Android use 37 APIs or are written in Java. Google writes its own --

THE COURT: Wait a minute. Is that true?

MR. VAN NEST: It is.

THE COURT: Is that true? Do you agree with that?

MS. HURST: Your Honor, it's true that using the Java native interface programs written in C++ could run on Android. Whether they still use the APIs or not is not of proof in the record.

THE COURT: Well, that's a brand-new wrinkle that I didn't know until right now. Okay. So maybe you-all ought to

get to the bottom of what Ms. Hurst just said.

Okay. I interrupted you. Please go ahead.

DR. KEARLE: I'm finished. I simply wanted to address the issue about causal nexus. And if you think of causal nexus as benefit to Google, then another way of thinking about it is, to repeat, not just do you get more revenues, but will you save costs and, therefore, your net revenues are higher. And the record does show that the costs are lower. In fact, traffic acquisition costs are substantially lower on Android phones than they are on non-Android phones for exactly the same search revenues. And, therefore, there is a net revenue increase because you used the Android device.

THE COURT: All right. No more.

MS. HURST: Okay. No argument.

THE COURT: Save any of the rebuttals until tomorrow. Okay. Thank you.

DR. KEARLE: I'm happy to take questions.

THE COURT: No, no. We'll do it tomorrow morning. You'll be here then too. Thank you.

MR. VAN NEST: Your Honor, for tomorrow morning, as I understand it, just so I know what to staff, we're going to do the motions in limine on Dr. Kearl.

THE COURT: Right.

MR. VAN NEST: We may get an opportunity to address Dr. Leonard briefly as well.

THE COURT: Didn't we do that today?

MR. VAN NEST: We did, but there's a couple points we --

THE COURT: We'll try to finish up with Leonard and Kim.

MR. VAN NEST: Good. Finish up with Leonard, Kim, and then do Dr. Kearl. And then I think --

THE COURT: I want to do Kearl first, and then come back to Leonard.

MR. VAN NEST: That's fine. Leonard, and then I think you said Kemerer. And that would be tomorrow's agenda.

THE COURT: That will be all we can do then.

MR. VAN NEST: Okay.

THE COURT: Our final pretrial conference is a week from -- is not this week, but next week?

MR. VAN NEST: Correct.

THE COURT: What day of the week is that?

MS. ANDERSON: Wednesday.

MR. VAN NEST: Wednesday.

THE COURT: There may be some of these motions in limine to where I'm just going to do on the papers. You can see how long it takes us to do one.

MR. VAN NEST: That's fine, Your Honor.

THE COURT: And then I can't -- I just can't promise you that I'm going to have them all done.

I did have this further question for you. And that is, it would be your advice on which two or three are the absolute most important to decide before the opening statements, and the two or three which are -- it's okay to wait until later. And that's one way to distinguish them. But, also, which ones are the mirror image of the other in terms of, for example, Leonard had the reply brief problem and so does Malackowski. Even though for different reasons and different subjects. But, nevertheless, they -- they -- I don't want to be inconsistent on my rulings unless there's a good explanation why.

So sometimes I rule one way on issue X for one witness, and there's somewhere lurking on the other side, there's that same problem that's lurking on somebody's motion in limine. So if you could try to identify what those are, those interfaces are, I do appreciate it. I think I've got a pretty good idea already.

What we say to the jury about the Federal Circuit or the pretrial trial, that will come up. You need to know that by the openings. We can't -- I think. Maybe we can find a modus vivendi to get around that. But I think you need to come to an agreement. I think this is something you-all ought to agree on.

And, in any event, you've got to tell me what you propose that you're going to say to the jury about -- if you're going to use the recording of the lawyer saying yes, it is

commercial, then you've got to have a witness who can authenticate it. Was that witness disclosed under Rule 26? We've got to do it the right way.

And you have to be right upfront and give me a list of all the things that have come out of the Federal Circuit opinion, the Federal Circuit argument and then the prior trial.

Another thing that I need for you to give me, you know that questionnaire that I sent out, which was a -- my version of a shortened version of yours, I need to put on the back a complete list of all witnesses. So you need to give me an agreed-upon list of all witnesses so that the venire can circle the ones that they think they know.

All right. Let's break for today. And I'll see you 5 o'clock in the morning. Thank you.

MR. BICKS: Thank you.

MS. ANDERSON: Thank you.

MR. VAN NEST: Thank you, Your Honor.

MS. HURST: Thank you.

(At 1:05 p.m. the proceedings were adjourned.)

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CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

DATE: Thursday, April 21, 2016

Katherine Powell Sullivan, CSR #5812, RMR, CRR
U.S. Court Reporter